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MONTANA

ORIGIN AND DESTINATION

SURVEYS

BUTTE

HELENA

MILES CITY

LIVINGSTON

GLENDIVE

1956

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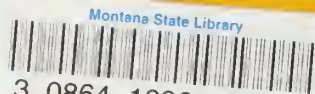
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MONTANA ORIGIN AND DESTINATION SURVEYS 1956
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ORIGIN AND DESTINATION SURVEYS

BUTTE
HELENA
MILES CITY
LIVINGSTON
GLENDALE

CONDUCTED BY THE
MONTANA HIGHWAY COMMISSION
PLANNING SURVEY
IN COOPERATION WITH
U.S. DEPARTMENT OF COMMERCE
BUREAU OF PUBLIC ROADS

1956

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DEFINITIONS

ORIGIN AND DESTINATION STUDY: A study of the Origins and Destinations of trips passing out of, into, or through a selected area.

CENTRAL BUSINESS DISTRICT: The major business district of a City, also commonly called the downtown area.

TRIP: The one-way travel of one vehicle between an origin and a destination.

DESIRE LINE: A straight line between an origin and a destination.

EXTERNAL ORIGIN
AND
DESTINATION STUDIES

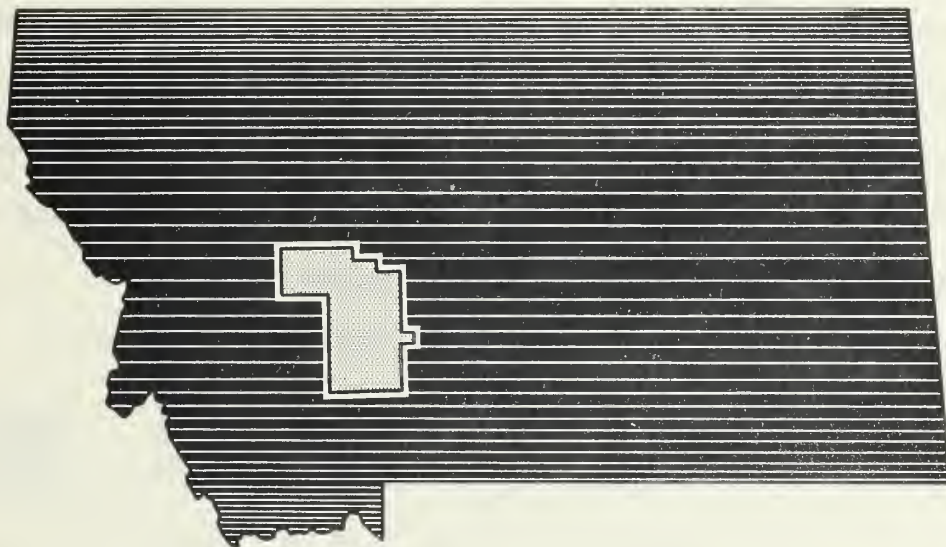
Adequate information concerning the travel habits of motorists that might use Montana's Interstate System was considered essential in the planning and location of this system. One particularly important source of this information is the study of the Origins and Destinations of Motorists now using existing routes through cities and towns.

The road-side interview method was selected to obtain the field data on the principal highways entering the cities. This method consists of stopping and directly interviewing outbound motorists concerning their origin, destination, and principal stops in the city being surveyed. Each station was operated for a sixteen hour period on weekdays between the hours of 6 AM and 10 PM during the summer months when traffic is at or near its peak. The interviews were later expanded to average weekday 24 hour traffic volumes.

As an aid in summarizing individual trips into useable, significant traffic patterns the urban area of each City was divided into zones, generally denoting land use characteristics. Each trip was then analyzed, assigned to the proper zone number and numerically coded for IBM processing. By this method, trips of like nature may be grouped into major desire lines and used as an aid in the location and design of new highway facilities.

The following series of charts, graphically present external origin and destination data for several of Montana's Cities.

CITY OF



BUTTE

BUTTE EXTERNAL ORIGIN AND DESTINATION STUDY

This study was conducted during the period from August 20 to 28, 1956. Outbound motorists were interviewed at three stations located on the principal highways near the urban limits. Each station was operated for 16 hours between 6 AM and 10 PM on weekdays and the interviews were later expanded to an average twenty-four hour traffic volume.

A summary of all stations operated in the Butte area follows:

STATION	NUMBER OF INTERVIEWS	AVERAGE WEEKDAY TRAFFIC ALL VEHICLES	TRAFFIC TRUCKS	PERCENT TRUCKS
1 US 91	2361	6650	192	2.9
2 US 10S	2912	7110	442	6.2
3 US 10S & US 91	<u>2168</u>	<u>6651</u>	<u>575</u>	<u>8.6</u>
TOTALS	7441	20411	1209	5.9

Light panels and pickups are grouped with passenger cars.

7/6

DISTRIBUTION OF ALL
THROUGH TRAFFIC

Plate 2 illustrates the interchange of all through trips between external stations on an average weekday in August 1956.



DISTRIBUTION OF ALL TRAFFIC PASSING

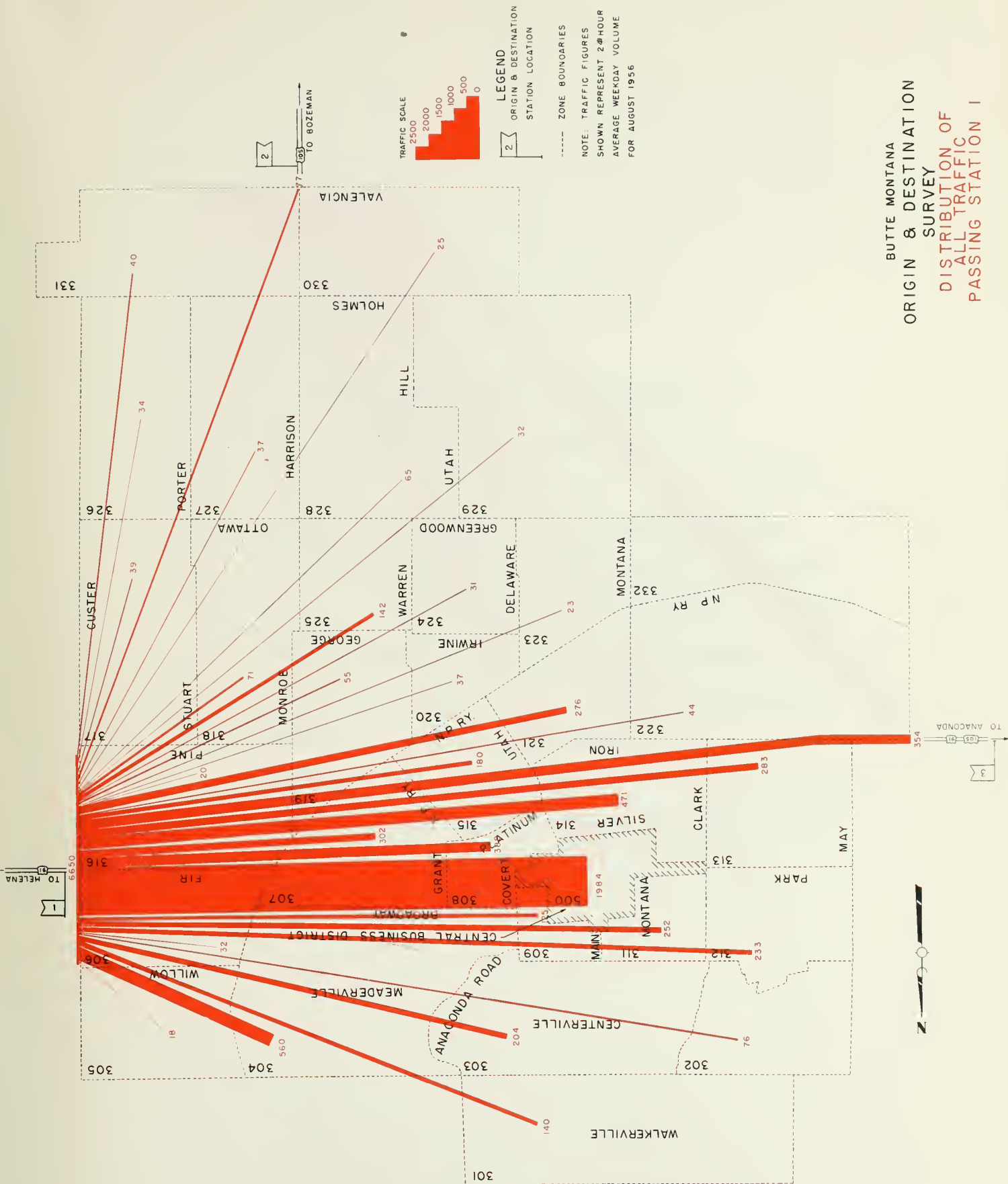
STATION 1 - US 91

Plate 3 illustrates traffic desire lines of all traffic entering and leaving Butte on US 91 during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average weekday traffic - - - - -	6650
Percent to Central Business District - - - -	29.83
Percent Through Traffic (East-South) - - - -	1.16
Percent Through Traffic (East-West) - - - -	5.32

BUTTE MONTANA
 ORIGIN & DESTINATION
 SURVEY
 DISTRIBUTION OF
 ALL TRAFFIC
 PASSING STATION 1



DISTRIBUTION OF ALL TRAFFIC PASSING

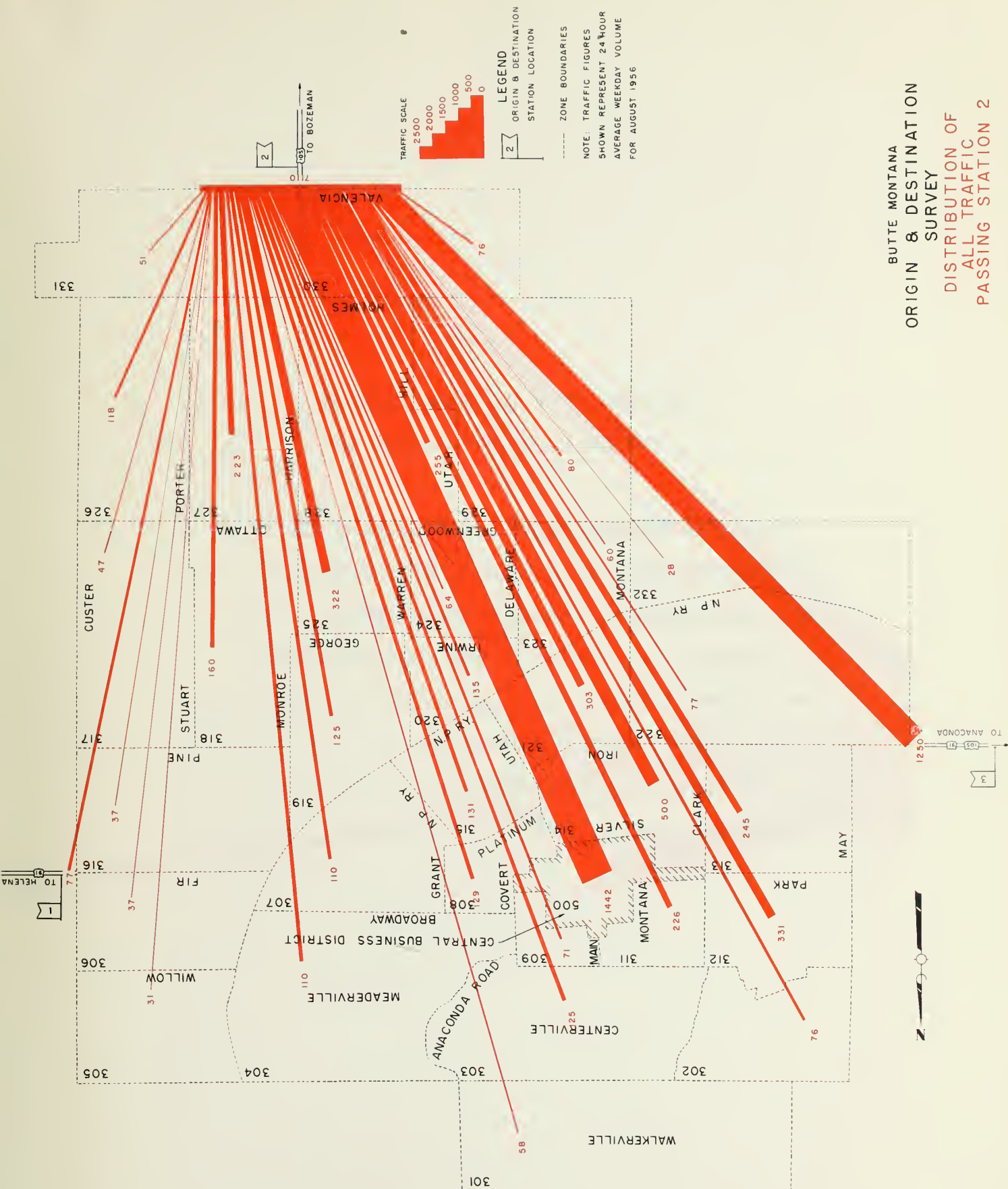
STATION 2 - US 10 SOUTH

Plate 4 illustrates traffic desire lines of all traffic entering and leaving Butte on US 10 South during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	7110
Percent to Central Business District - - - - -	20.3
Percent Through Traffic (South-East) - - - - -	1.1
Percent Through Traffic (South-West) - - - - -	17.6

BUTTE MONTANA ORIGIN & DESTINATION SURVEY DISTRIBUTION OF ALL TRAFFIC PASSING STATION 2



DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 3 - US 10 SOUTH & US 91

Plate 5 illustrates traffic desire lines of all traffic entering and leaving Butte on US 10 South & US 91 during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	6651
Percent to Central Business District - - - - -	22.3
Percent Through Traffic (West-South) - - - - -	18.8
Percent Through Traffic (West-East) - - - - -	5.3



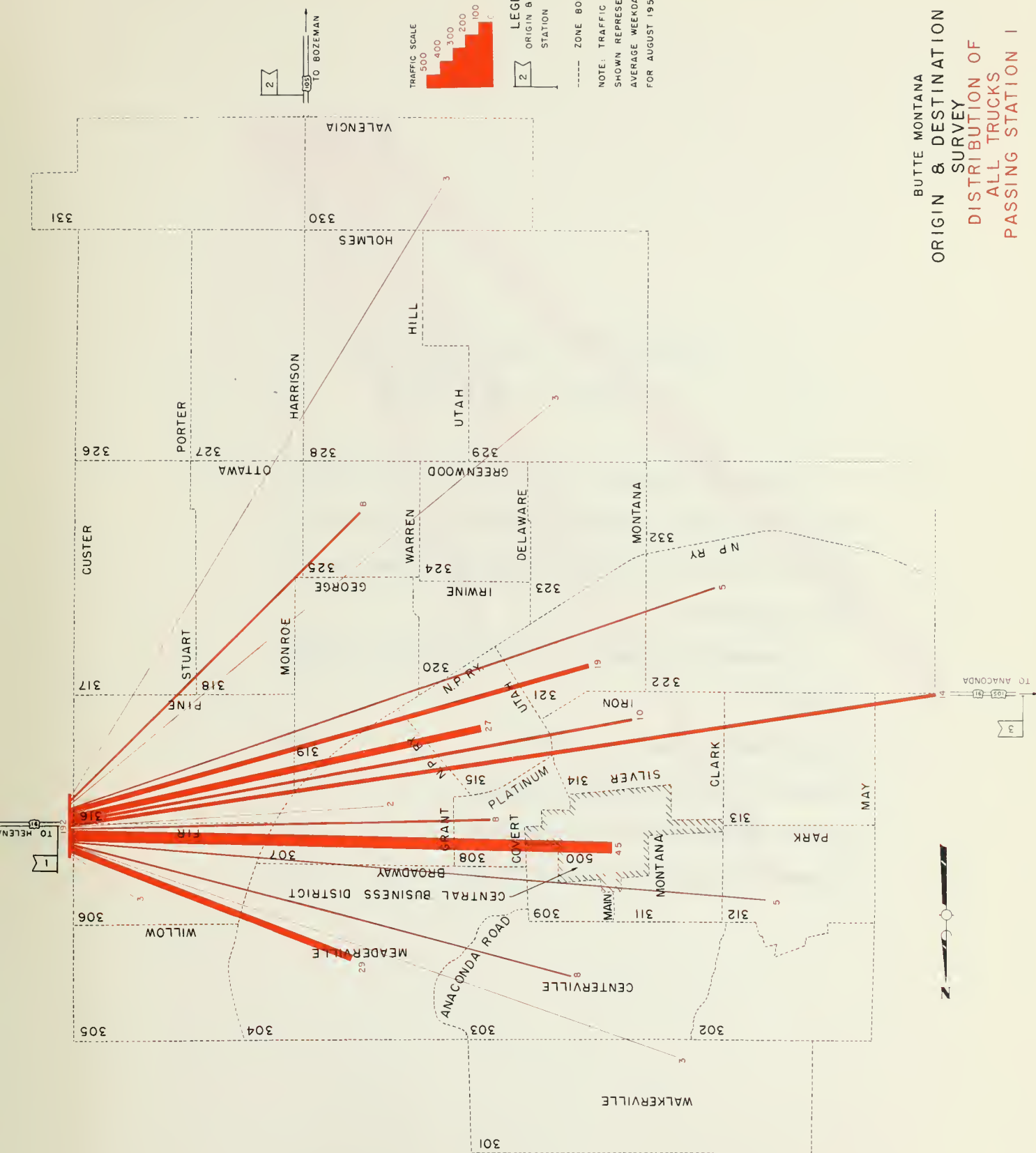
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 1 - US 91

Plate 6 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Butte on US 91 east during an average weekday in August 1956.

A summary of Commercial Traffic at this station follows:

Average Daily Commercial Traffic	- - - - -	192
Percent to Central Business District	- - - - -	23.4
Percent Through Traffic (East-South)	- - - - -	0.0
Percent Through Traffic (East-West)	- - - - -	7.3



DISTRIBUTION OF ALL TRUCKS PASSING

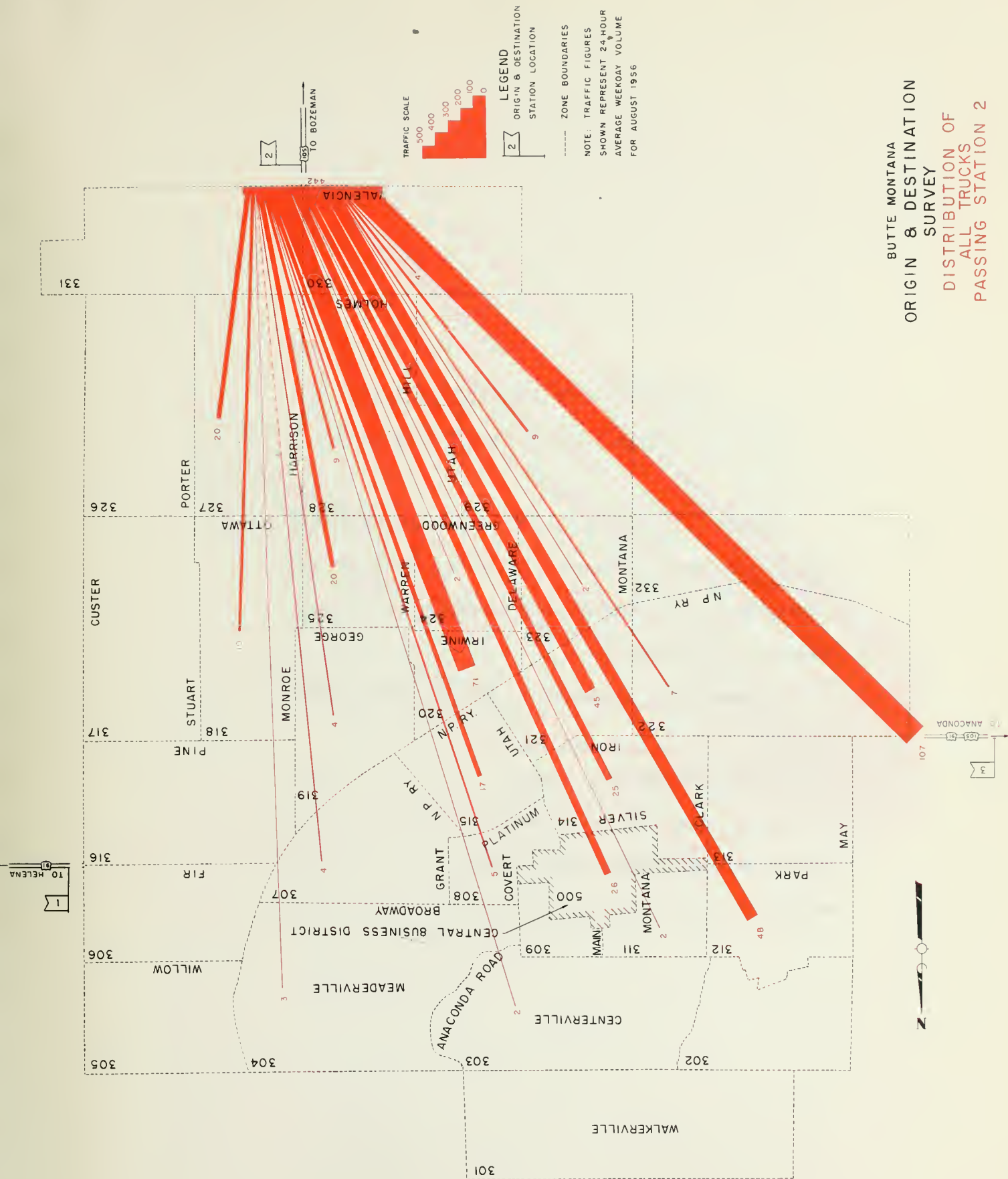
STATION 2 - US 10 SOUTH

Plate 7 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Butte on US 10 South during an average week-day in August 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic	- - - - -	442
Percent to Central Business District	- - - - -	5.9
Percent Through Traffic (South-East)	- - - - -	0.0
Percent Through Traffic (South-West)	- - - - -	24.2

BUTTE MONTANA
 ORIGIN & DESTINATION
 SURVEY
 DISTRIBUTION OF
 ALL TRUCKS
 PASSING STATION 2



DISTRIBUTION OF ALL TRUCKS PASSING

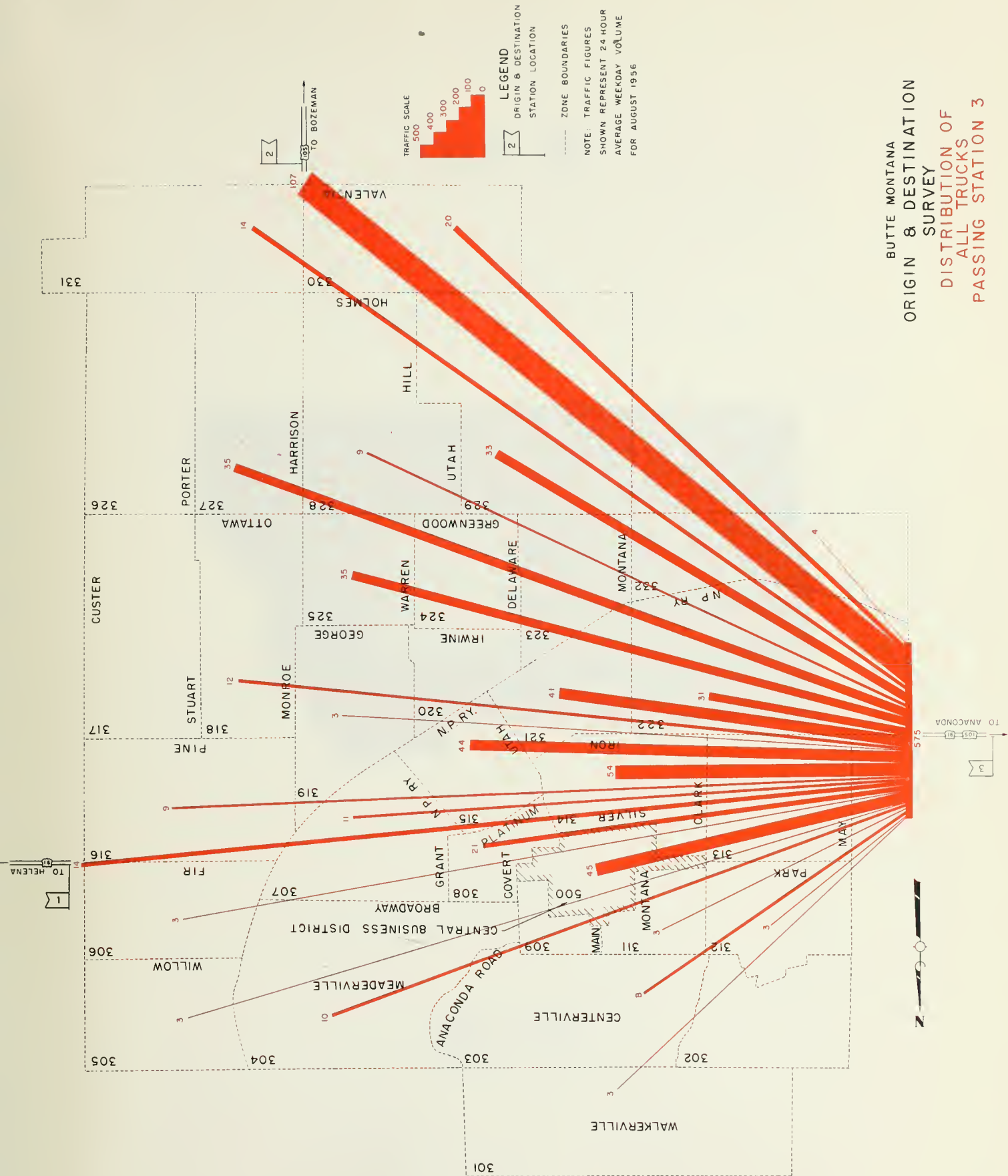
STATION 3 - US 10 SOUTH & US 91

Plate 8 illustrates traffic desire lines of all medium and heavy Commercial Vehicles entering and leaving Butte on US 10 South & 91 during an average weekday in August 1956.

A summary of Commercial Traffic at this station follows:

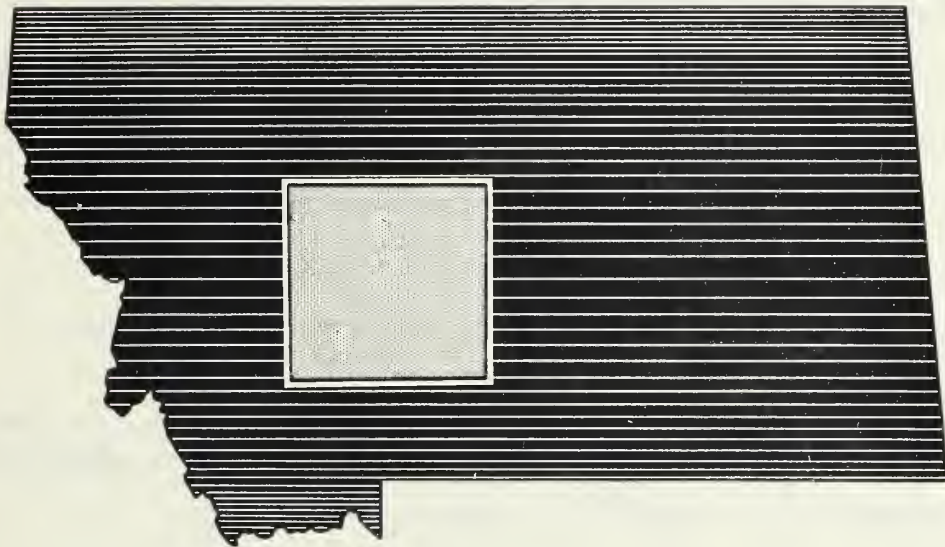
Average Daily Commercial Traffic	- - - - -	575
Percent to Central Business District	- - - - -	7.8
Percent Through Traffic (West-South)	- - - - -	18.6
Percent Through Traffic (West-East)	- - - - -	2.4

BUTTE MONTANA
 ORIGIN & DESTINATION
 SURVEY
 DISTRIBUTION OF
 ALL TRUCKS
 PASSING STATION 3





CITY OF



HELENA

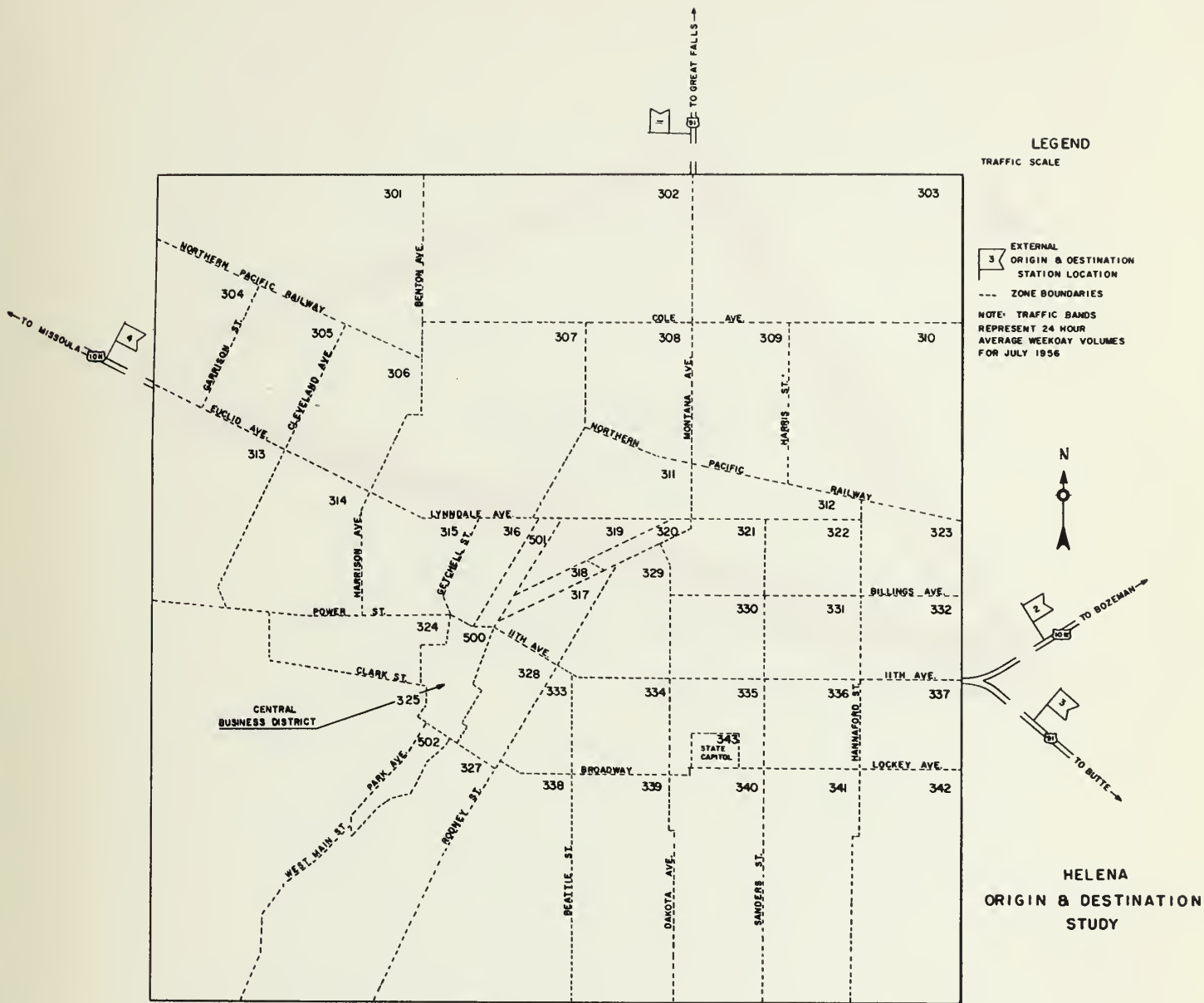
HELENA EXTERNAL ORIGIN AND DESTINATION STUDY

This study was conducted during the period from June 28 to July 9, 1956. Outbound motorists were interviewed at four stations located on the principal highways near the urban limits. Each station was operated for 16 hours between 6 AM and 10 PM on weekdays and the interviews were later expanded to an average twenty-four hour traffic volume.

A summary of all stations operated in the Helena area follows:

STATION	NUMBER OF INTERVIEWS	AVERAGE WEEKDAY ALL VEHICLES	TRAFFIC TRUCKS	PERCENT TRUCKS
1 US 91 (North)	1518	3752	281	7.5
2 US 10 (East)	1565	4646	236	5.1
3 US 91 (South)	519	1479	118	8.0
4 US 10 (West)	<u>1822</u>	<u>5359</u>	<u>425</u>	<u>7.9</u>
TOTALS	5424	15236	1060	7.0

Light panels and pickups are grouped with passenger cars.



DISTRIBUTION OF ALL
THROUGH TRAFFIC

Plate 10 illustrates the interchange of all through trips between external stations on an average weekday in August 1956.

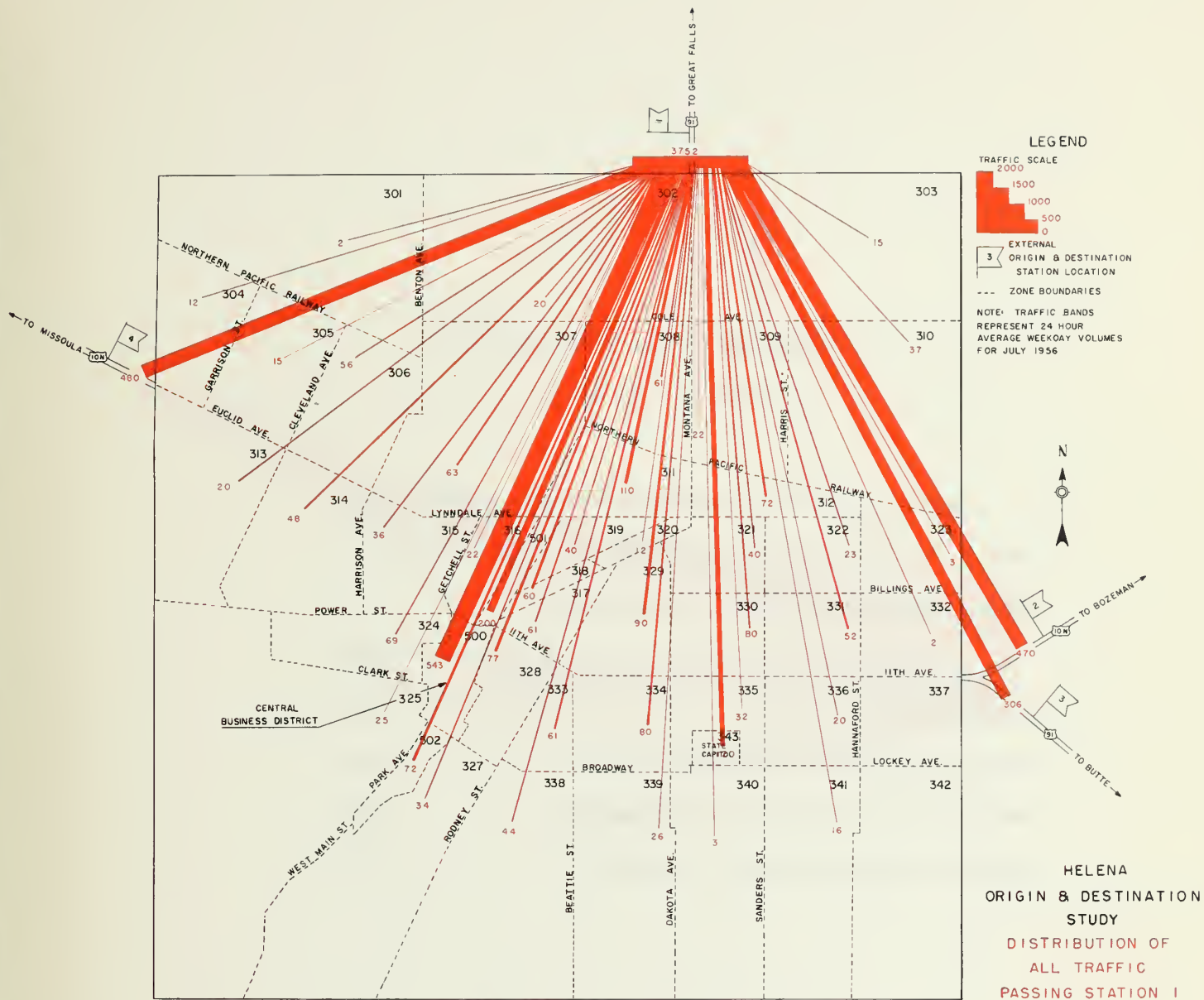
DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 1 - US 91

Plate 11 illustrates traffic desire lines of all traffic entering and leaving Helena on US 91 during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	3752
Percent to Central Business District - - - - -	14.5
Percent Through Traffic (North-East) - - - - -	12.5
Percent Through Traffic (North-South) - - - - -	8.2
Percent Through Traffic (North-West) - - - - -	12.8



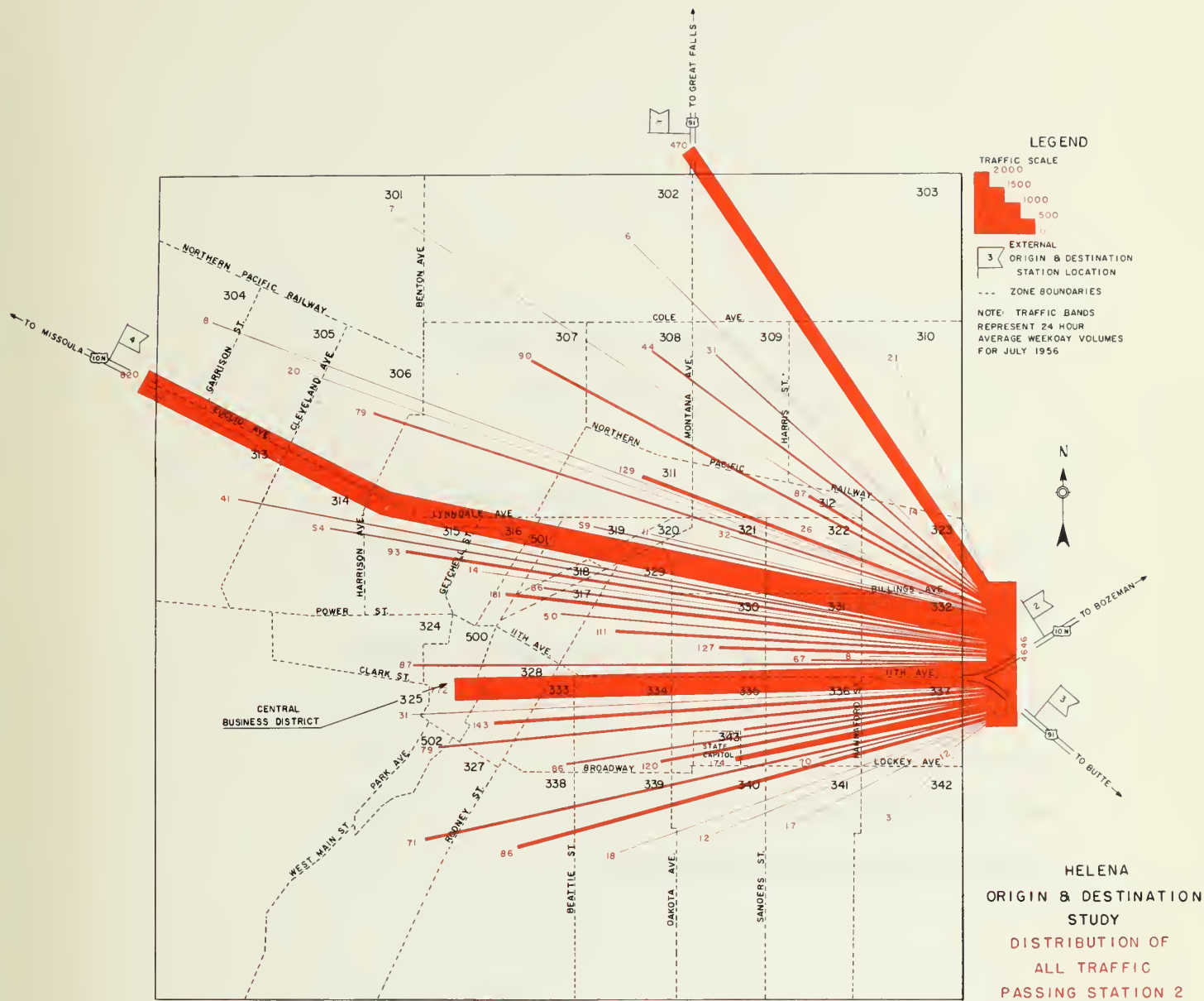
DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 2 - US 10 North

Plate 12 illustrates traffic desire lines of all traffic entering and leaving Helena on US 10 North during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic-	- - - - -	4646
Percent to Central Business District	- - - - -	16.6
Percent Through Traffic (East-North)	- - - - -	10.1
Percent Through Traffic (East-West)	- - - - -	17.6



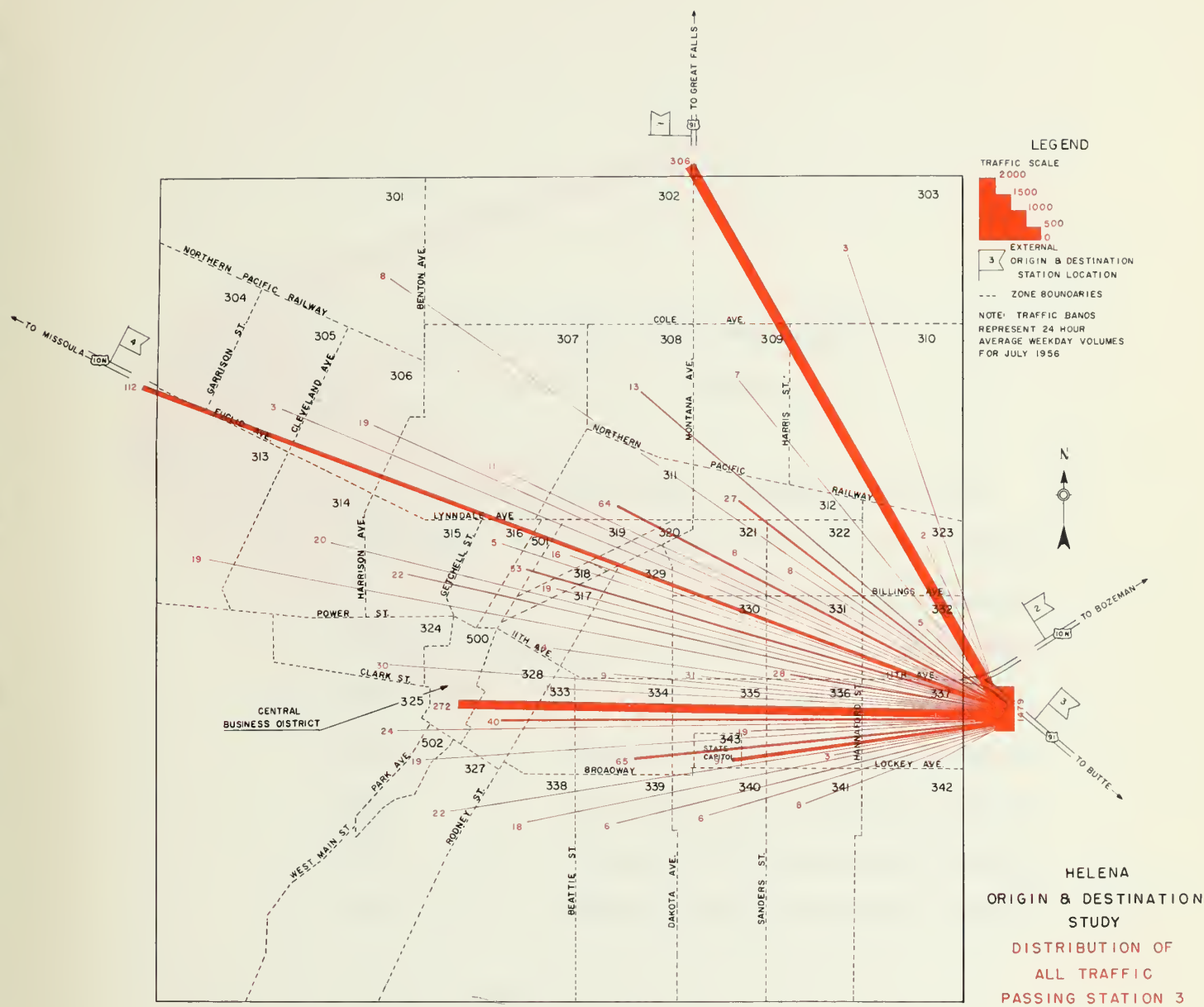
DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 3 - US 91 SOUTH

Plate 13 illustrates traffic desire lines of all traffic entering and leaving Helena on US 91 South during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic	- - - - -	1479
Percent to Central Business District	- - - - -	18.4
Percent Through Traffic (South-North)	- - - - -	20.7
Percent Through Traffic (South-West)	- - - - -	7.6



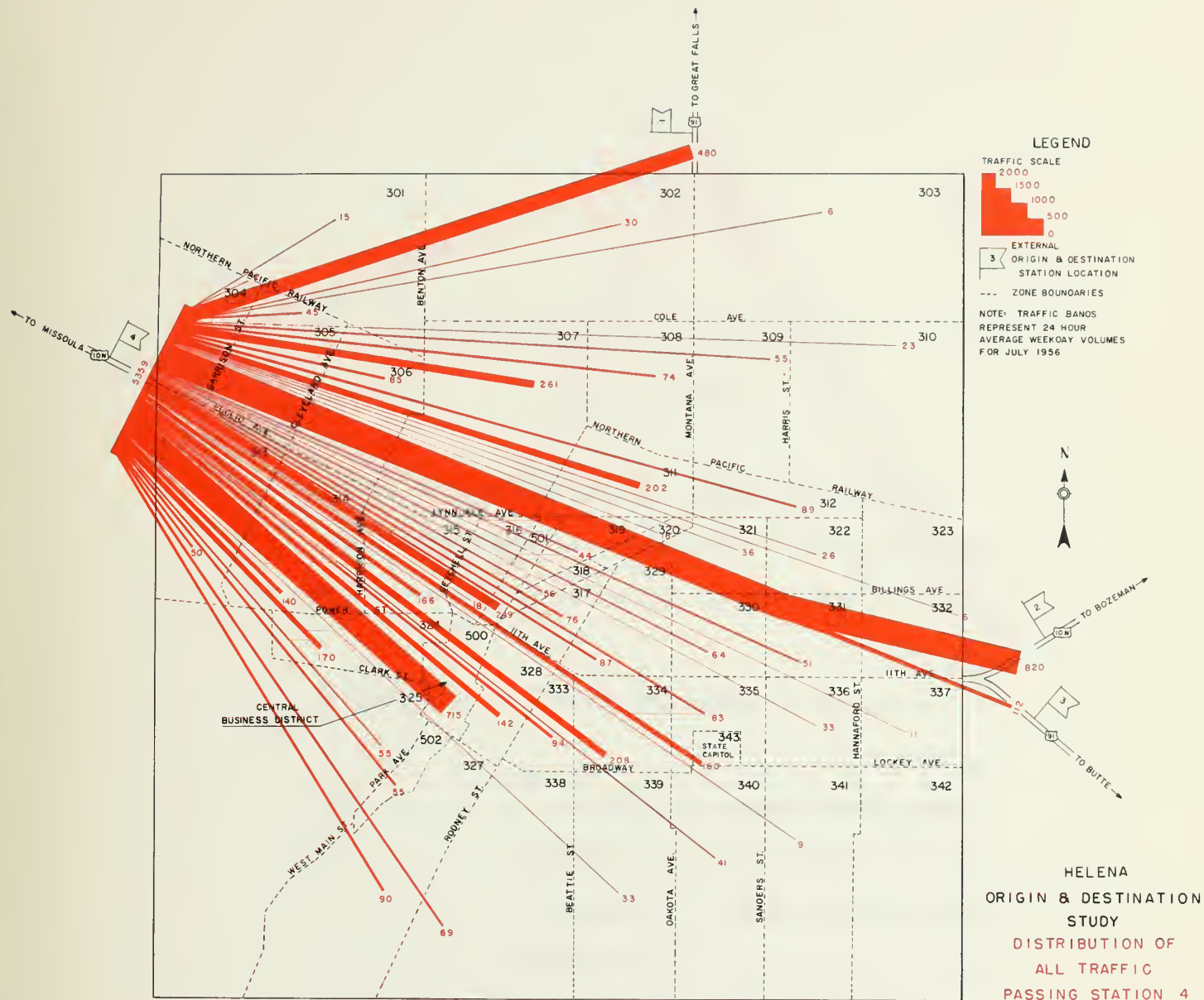
DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 4 - US 10 NORTH

Plate 14 illustrates traffic desire lines of all traffic entering and leaving Helena on US 10 North during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic	- - - - -	5359
Percent to Central Business District	- - - -	13.34
Percent Through Traffic (West-North)	- - - -	9.0
Percent Through Traffic (West-East)	- - - -	15.3
Percent Through Traffic (West-South)	- - - -	2.1



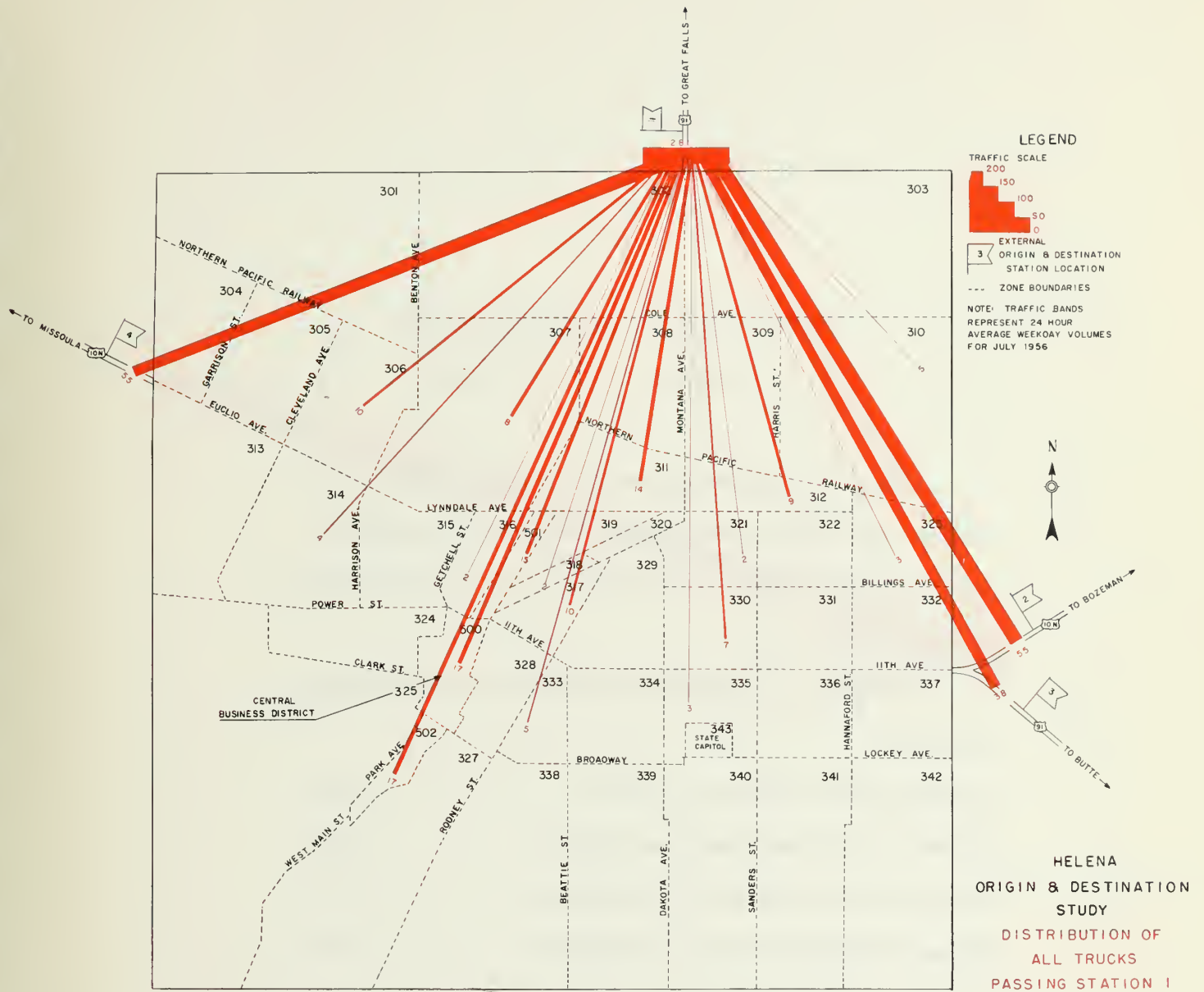
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 1 - US 91

Plate 15 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Helena on US 91 during an average weekday in July 1956.

A summary of Commercial Traffic at this station follows:

Average Daily Commercial Traffic - - - - -	281
Percent to Central Business District - - - - -	6.0
Percent Through Traffic (North-East) - - - - -	19.6
Percent Through Traffic (North-South) - - - - -	13.5
Percent Through Traffic (North-West) - - - - -	19.6



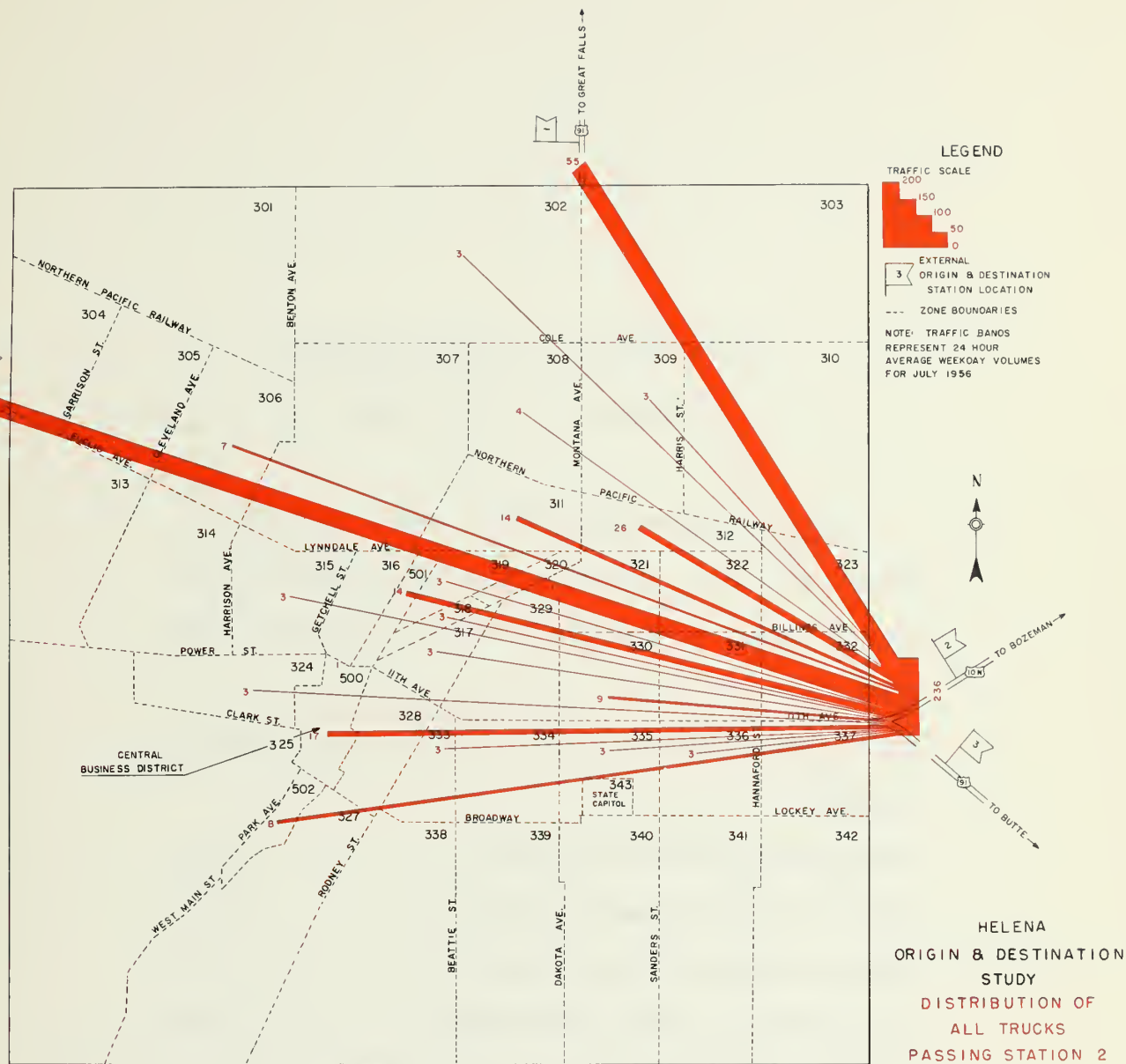
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 2 - US 10 NORTH

Plate 16 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Helena on US 10 North during an average weekday in July 1956.

A summary of Commercial Traffic at this station follows:

Average Daily Commercial Traffic	- - - - -	236
Percent to Central Business District	- - - - -	7.2
Percent Through Traffic (East-North)	- - - - -	23.3
Percent Through Traffic (East-West)	- - - - -	22.0



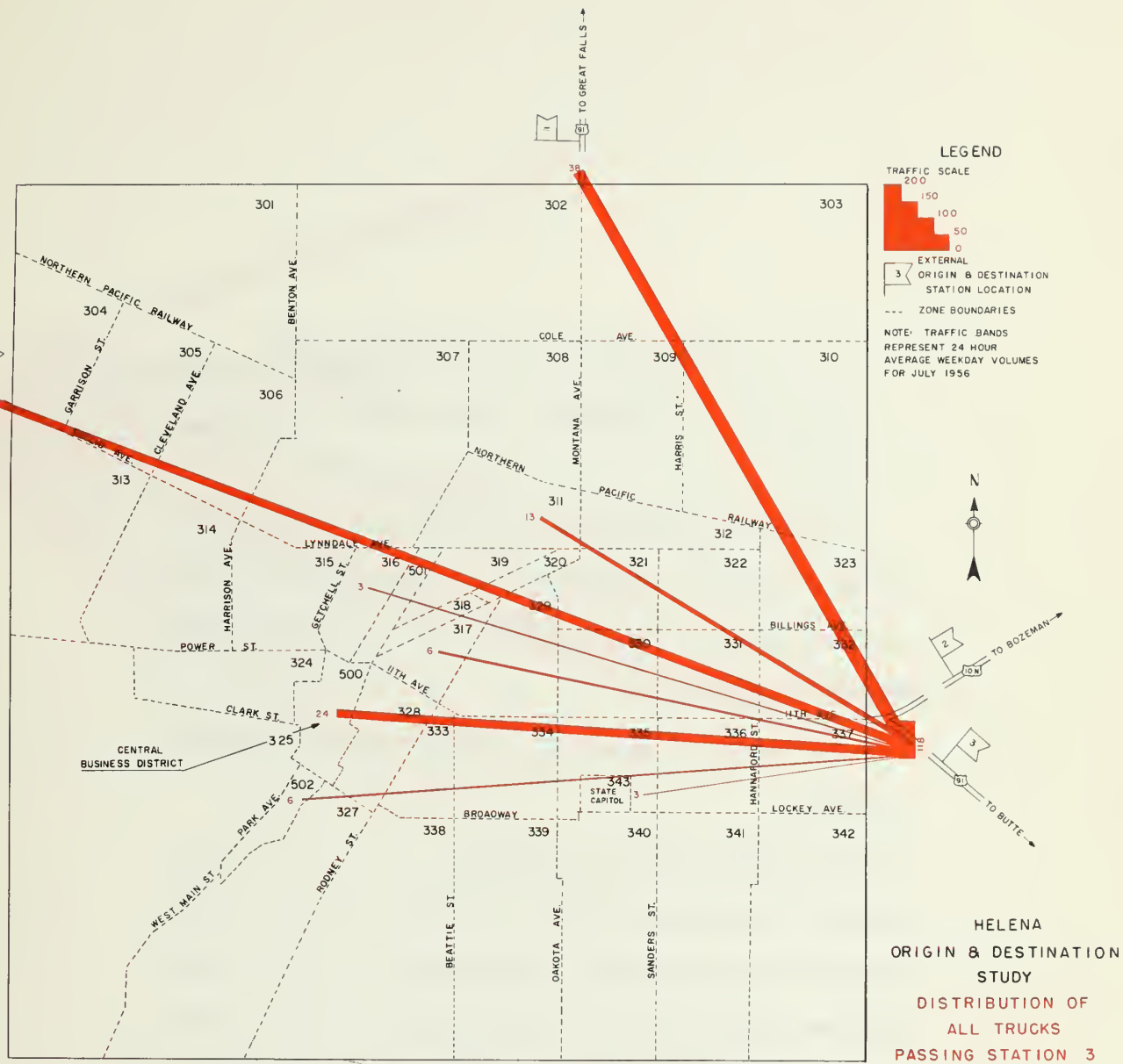
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 3 - US 91 SOUTH

Plate 17 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Helena on US 91 South during an average week-day in July 1956.

A summary of Commercial Traffic at this station follows:

Average Daily Commercial Traffic - - - - -	118
Percent to Central Business District - - - - -	20.3
Percent Through Traffic (South-North) - - - - -	32.2
Percent Through Traffic (South-West) - - - - -	21.2



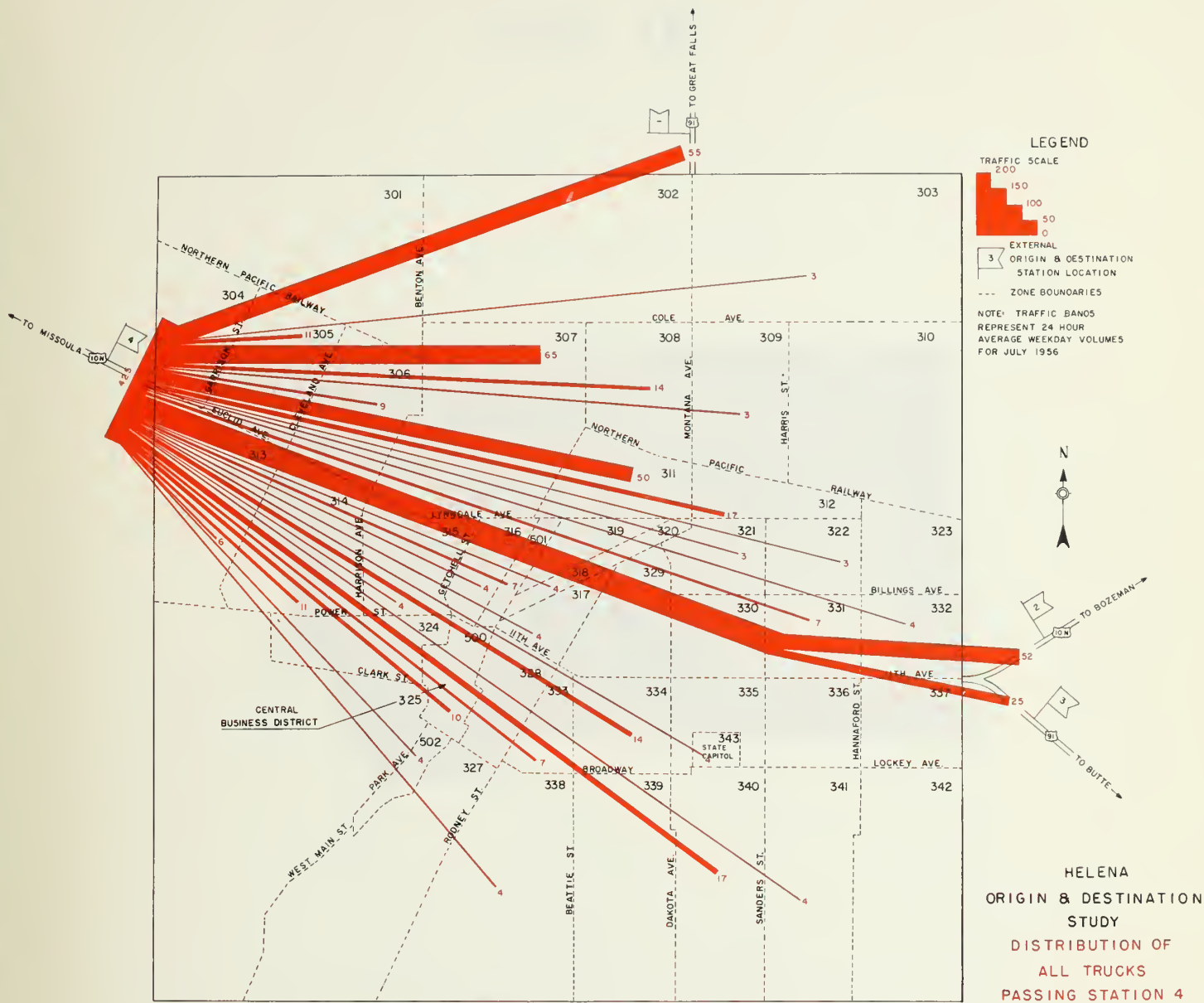
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 4 - US 10 NORTH

Plate 18 illustrates traffic desire lines of all medium to heavy commercial vehicles entering and leaving Helena on US 10 North during an average week-day in July 1956.

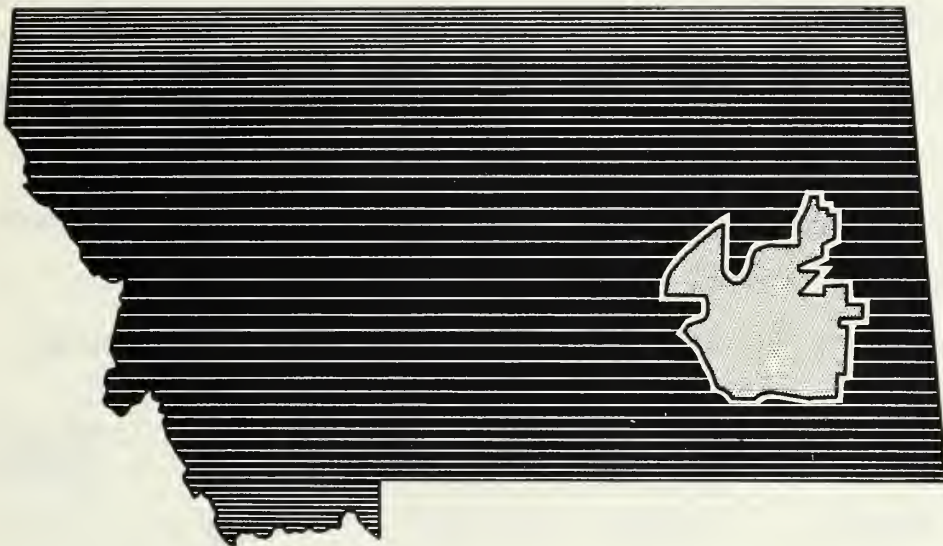
A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	425
Percent to Central Business District - - - - -	2.4
Percent Through Traffic (West-North) - - - - -	12.9
Percent Through Traffic (West-East) - - - - -	12.2
Percent Through Traffic (West-South) - - - - -	5.9





CITY OF



MILES CITY

MILES CITY EXTERNAL ORIGIN AND DESTINATION STUDY

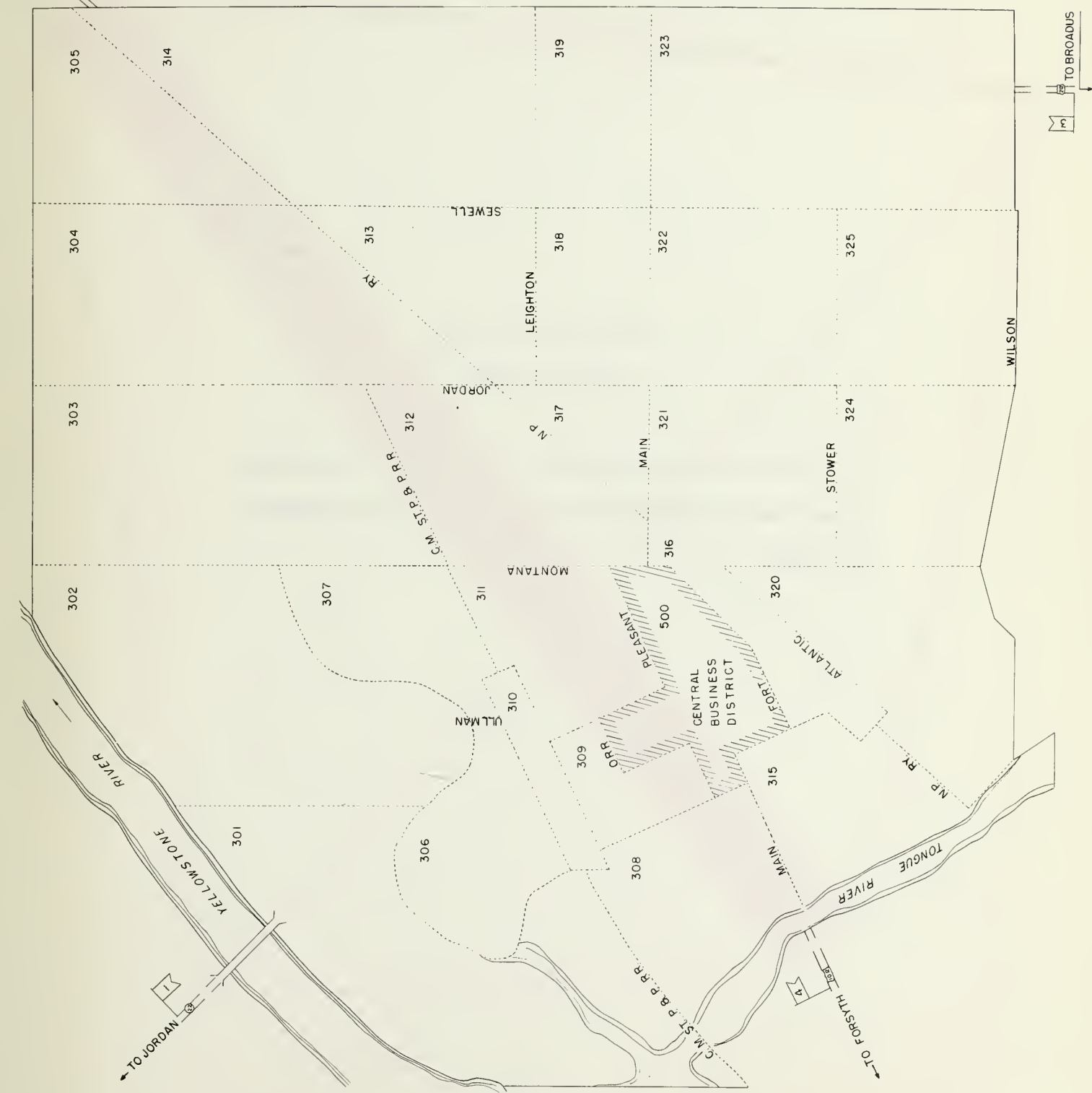
This study was conducted during the period from July 18 to July 26, 1956. Outbound motorists were interviewed at four stations located on the principal highways near the urban limits. Each station was operated for 16 hours between 6 AM and 10 PM on weekdays and the interviews were later expanded to an average twenty-four hour traffic volume.

A summary of all stations operated in the Miles City area follows:

STATION	NUMBER OF INTERVIEWS	AVERAGE WEEKDAY ALL VEHICLES	TRAFFIC TRUCKS	PERCENT TRUCKS
1 Mont. 22 (North)	278	750	137	18.3
2 US 10 (East)	1935	6426	394	6.1
3 US 212 (South)	418	1280	242	18.9
4 US 10 (West)	<u>1460</u>	<u>4402</u>	<u>392</u>	<u>8.9</u>
TOTALS	4091	12858	1165	9.1

Light panels and pickups are grouped with passenger cars.

TO TERRY



DISTRIBUTION OF ALL
THROUGH TRAFFIC

Plate 20 illustrates the interchange of all through trips between external stations on an average weekday in July 1956.

DISTRIBUTION OF ALL TRAFFIC PASSING

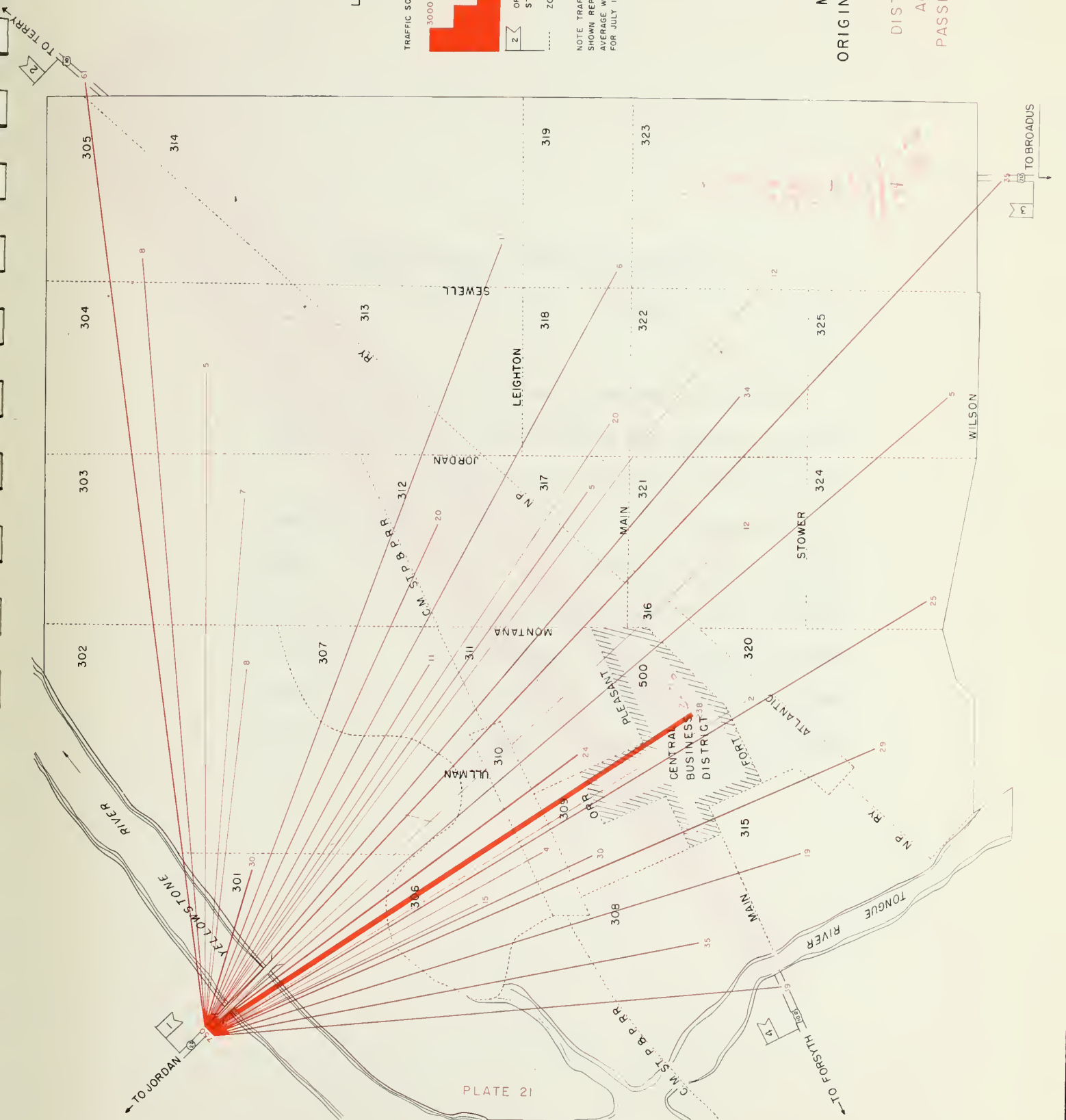
STATION 1 - MONT. 22 NORTH

Plate 21 illustrates traffic desire lines of all traffic entering and leaving Miles City on Mont. 22 North during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	750
Percent to Central Business District - - - ~~38~~	31.7
Percent Through Traffic (North-East) - - - ~~61~~	8.1
Percent Through Traffic (North-South) - - ~~35~~	4.7
Percent Through Traffic (North-West) - - - ~~39~~	5.2

N. of MONT. 22 495 6600.
 ✓ 205 340



LEGEND

TRAFFIC SCALE



ORIGIN & DESTINATION
STATION LOCATION

..... ZONE BOUNDARIES

NOTE TRAFFIC FIGURES
SHOWN REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUME
FOR JULY 1956



MILES CITY ORIGIN & DESTINATION STUDY

DISTRIBUTION OF
ALL TRAFFIC
PASSING STATION 1

DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 2 - US 10 EAST

Plate 22 illustrates traffic desire lines of all traffic entering and leaving Miles City on US 10 East during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	6426
Percent to Central Business District - - - <u>1632</u>	25.4
Percent Through Traffic (East-South) - - - <u>145</u>	2.3
Percent Through Traffic (East-West) - - - <u>1747</u>	27.2
Percent Through Traffic (East-North) - - - <u>61</u>	0.9

TRAFFIC N. I. W. P.
S. I. W. P.



DISTRIBUTION OF ALL TRAFFIC PASSING

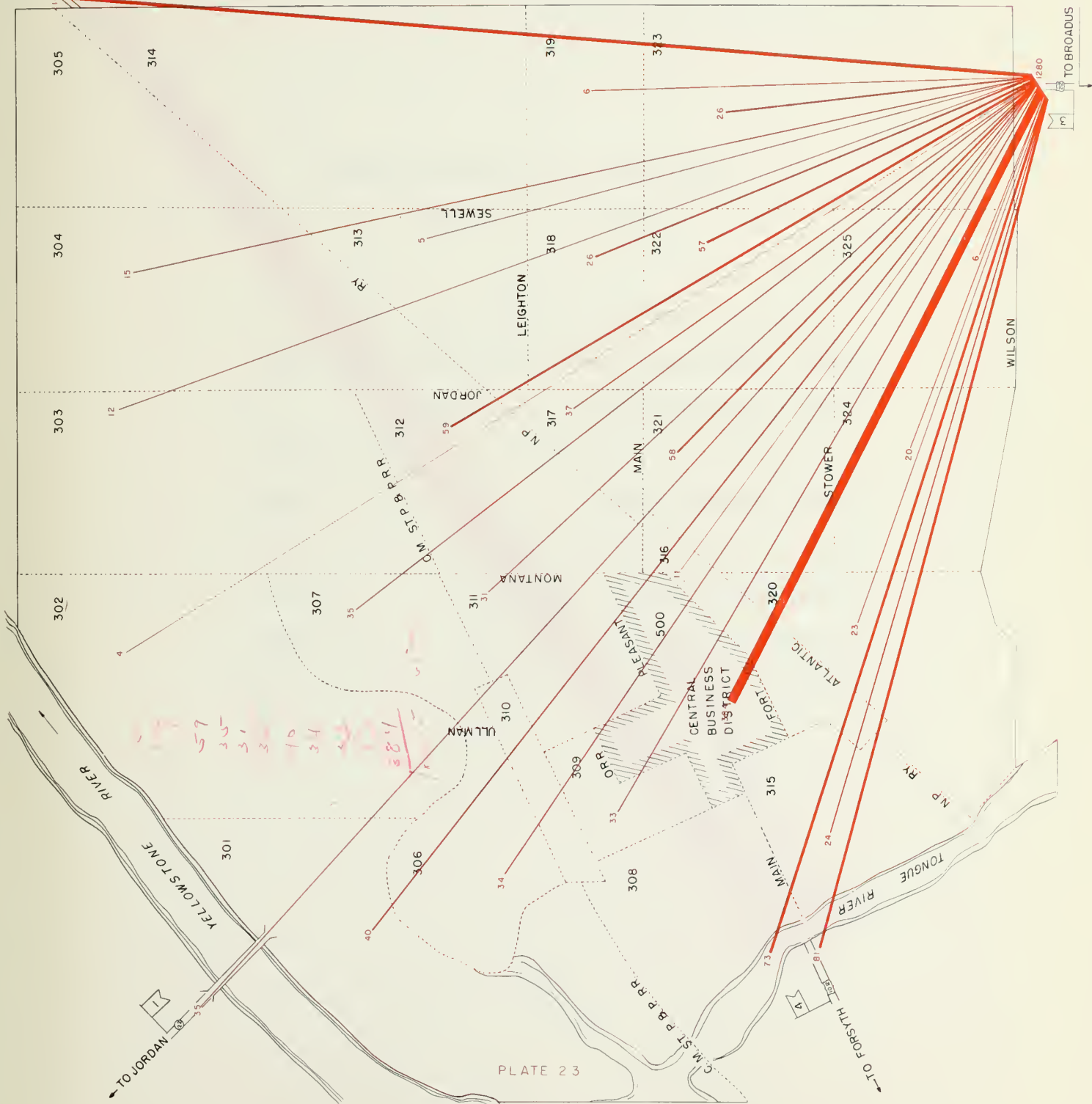
STATION 3 - US 212 SOUTH

Plate 23 illustrates traffic desire lines of all traffic entering and leaving Miles City on US 212 South during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	1280
Percent to Central Business District - - - - -	30.0
Percent Through Traffic (South-West) - - - - -	6.3
Percent Through Traffic (South-North) - - - - -	2.7
Percent Through Traffic (South-East) - - - - -	11.3

TO TERRY



LEGEND

TRAFFIC SCALE



ORIGIN & DESTINATION
STATION LOCATION

NOTE: TRAFFIC FIGURES
SHOWN REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUME
FOR JULY 1956



MILES CITY
ORIGIN & DESTINATION
STUDY
DISTRIBUTION OF
ALL TRAFFIC
PASSING STATION 3

TO JORDAN

TO FORSYTH

TO BROADUS

DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 4 - US 10 WEST

Plate 24 illustrates traffic desire lines of all traffic entering and leaving Miles City on US 10 West during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday traffic - - - - -	4402
Percent to Central Business District - - - - -	22.0
Percent Through Traffic (West-North) - - - - -	0.9
Percent Through Traffic (West-East) - - - - -	39.7
Percent Through Traffic (West-South) - - - - -	1.8

DISTRIBUTION OF ALL TRUCKS PASSING

STATION 1 - MONT. 22 NORTH

Plate 25 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Miles City on Mont. 22 North during an average weekday in July 1956.

A summary of Commercial traffic at this station follows:

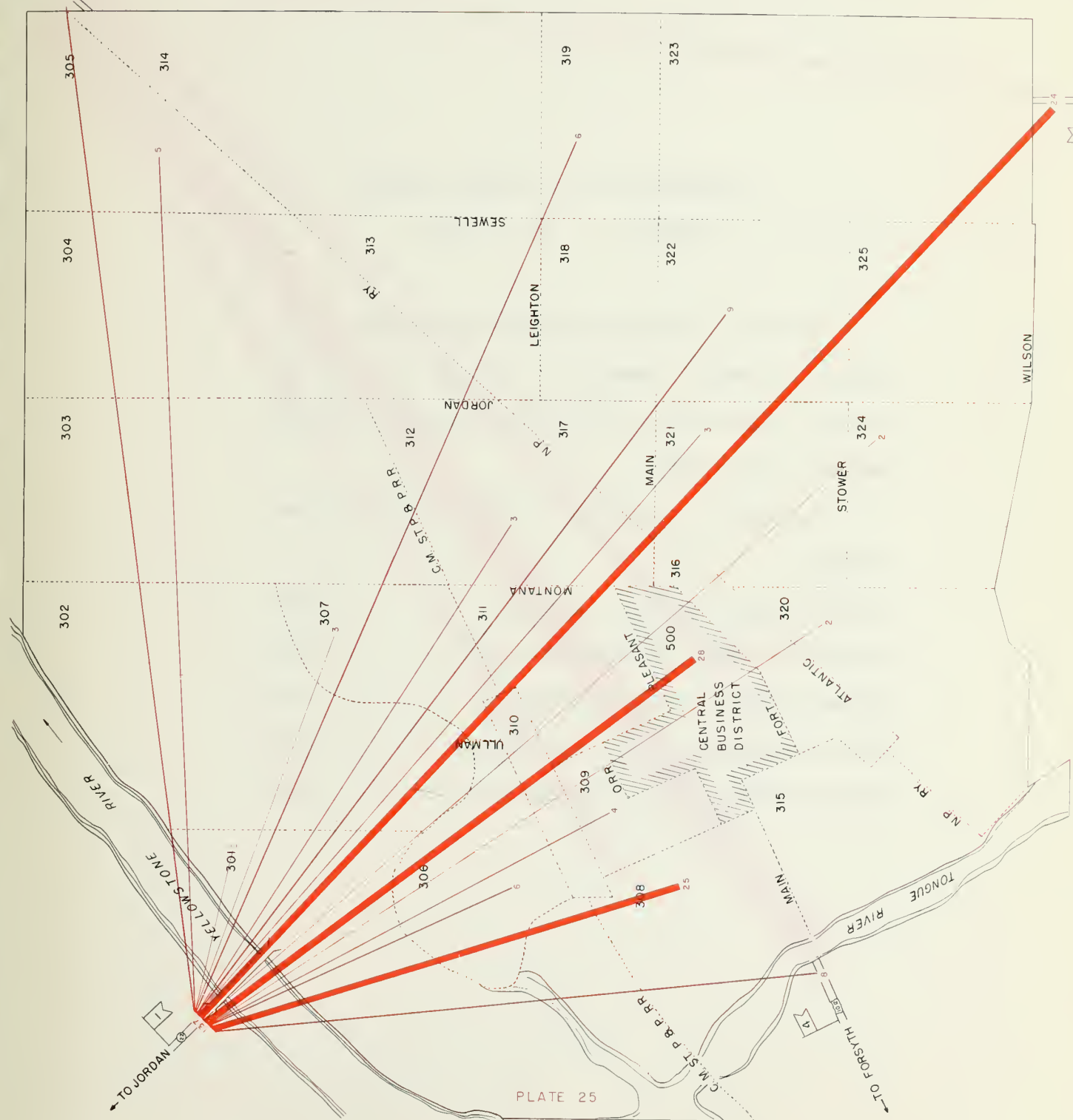
Average Daily Commercial Traffic - - - - -	137
Percent to Central Business District - - - - -	20.4
Percent Through Traffic (North-East) - - - - -	5.1
Percent Through Traffic (North-South) - - - - -	17.5
Percent Through Traffic (North-West) - - - - -	5.8

TO TERRY

TO JORDAN

TO FORSTH

TO BROADUS



LEGEND

TRAFFIC SCALE



ORIGIN & DESTINATION
STATION LOCATION

ZONE BOUNDARIES

NOTE TRAFFIC FIGURES
SHOWN REPRESENT 24 HOUR
AVERAGE WEEKLY VOLUME
FOR JULY 1956



MILES CITY ORIGIN & DESTINATION STATION DISTRIBUTION OF ALL TRUCKS PASSING STATION 1

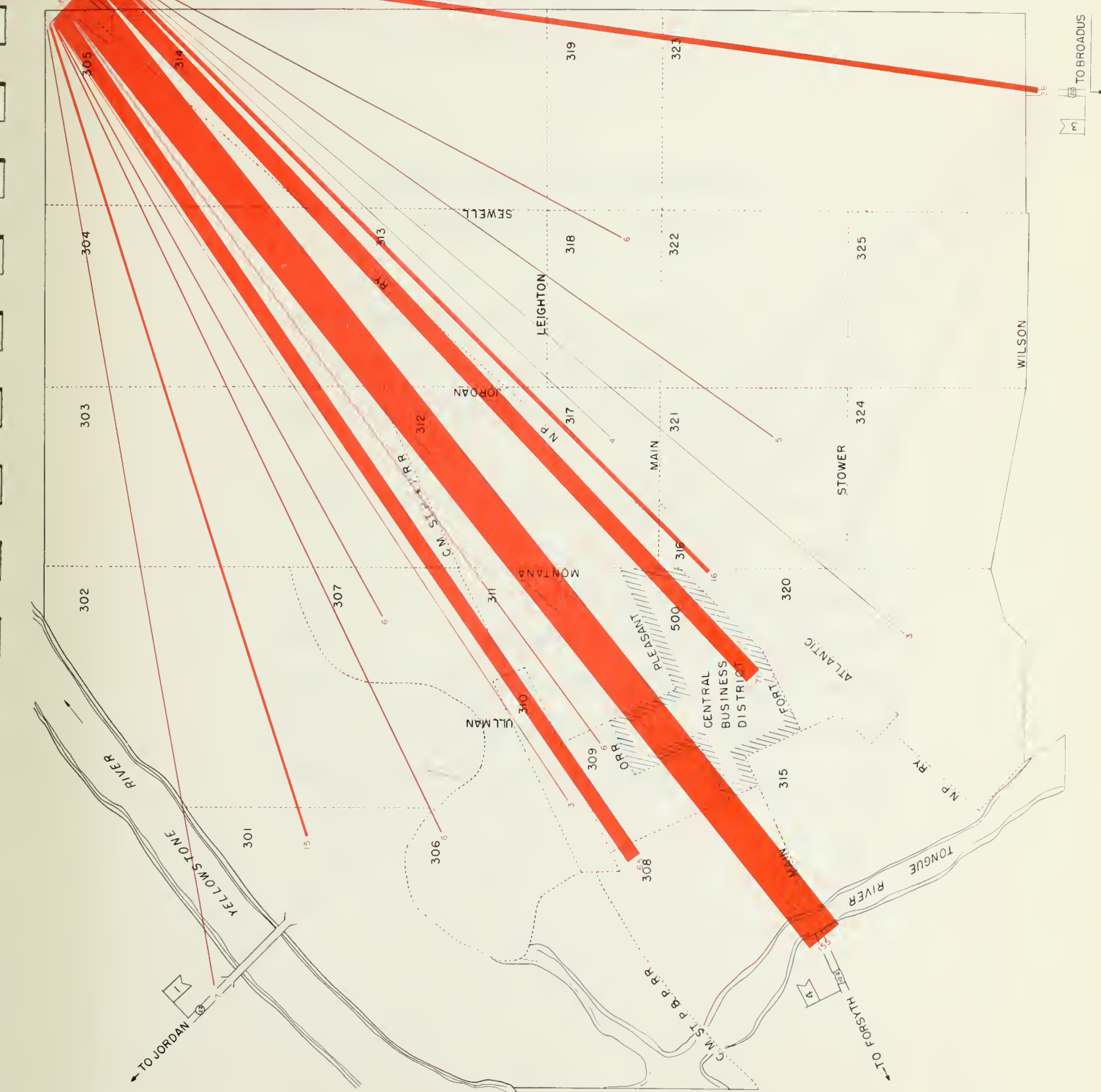
DISTRIBUTION OF ALL TRUCKS PASSING
STATION 2 - US 10 EAST

Plate 26 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Miles City on US 10 EAST during an average weekday in July 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial traffic - - - - -	394
Percent to Central Business District - - - - -	18.0
Percent Through Traffic (East-South) - - - - -	6.6
Percent Through Traffic (East-West) - - - - -	39.3
Percent Through Traffic (East-North) - - - - -	1.8

TO TERR



TO BROADUS

LEGEND

TRAFFIC SCALE



2

ORIGIN & DESTINATION
STATION LOCATION

..... ZONE BOUNDARIES

NOTE: TRAFFIC FIGURES
SHOWN REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUME
FOR JULY 1956



MILES CITY ORIGIN & DESTINATION STUDY DISTRIBUTION OF ALL TRUCKS PASSING STATION 2

DISTRIBUTION OF ALL TRUCKS PASSING

STATION 3 - US 212 SOUTH

Plate 27 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Miles City on US 212 South during an average weekday in July of 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial traffic - - - - -	242
Percent to Central Business District - - - - -	12.0
Percent Through Traffic (South-West) - - - - -	8.3
Percent Through Traffic (South-North) - - - - -	9.9
Percent Through Traffic (South-East) - - - - -	10.7

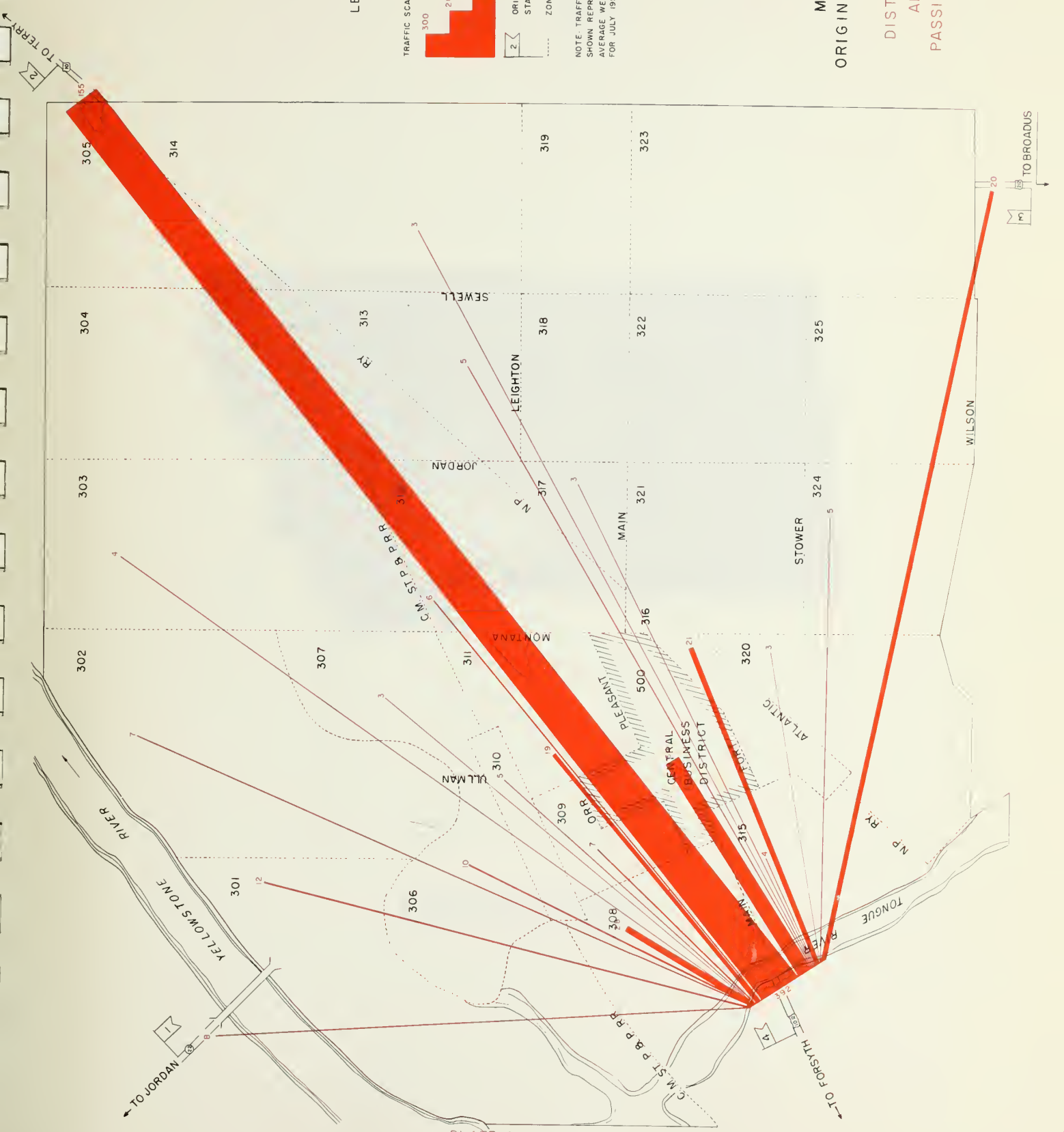
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 4 - US 10 WEST

Plate 28 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Miles City on US 10 West during an average weekday in July 1956.

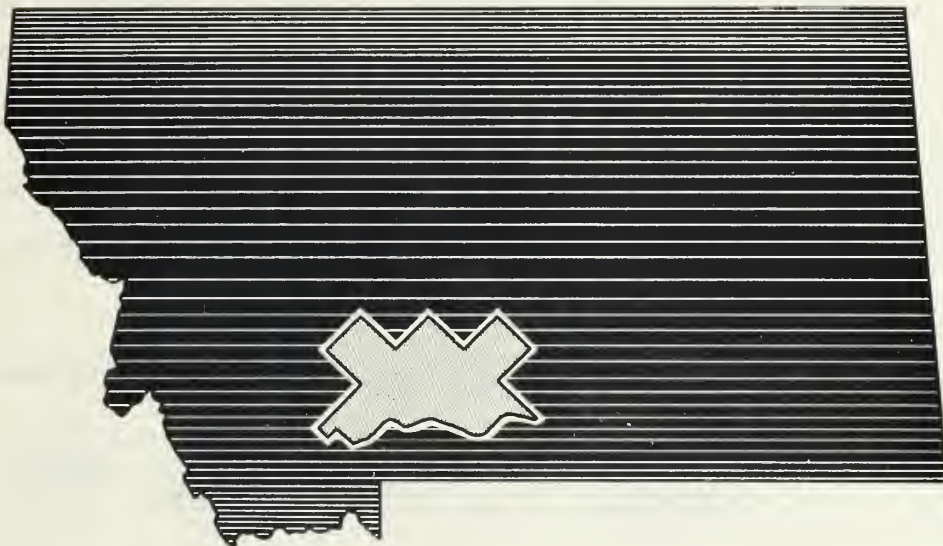
A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	392
Percent to Central Business District - - - - -	16.3
Percent Through Traffic (West-North) - - - - -	2.0
Percent Through Traffic (West-East) - - - - -	39.5
Percent Through Traffic (West- South) - - - - -	5.1



MILES CITY
ORIGIN & DESTINATION
STUDY
DISTRIBUTION OF
ALL TRUCKS
PASSING STATION 4

CITY OF



LIVINGSTON

LIVINGSTON EXTERNAL ORIGIN AND DESTINATION STUDY

This study was conducted during the period from July 10 to July 17, 1956. Outbound motorists were interviewed at three stations located on the principal highways near the urban limits. Each station was operated for 16 hours between 6 AM and 10 PM on weekdays and the interviews were later expanded to an average twenty-four hour traffic volume.

A summary of all stations operated in the Livingston area follows:

STATION	NUMBER OF INTERVIEWS	AVERAGE WEEKDAY TRAFFIC ALL VEHICLES	TRAFFIC TRUCKS	PERCENT TRUCKS
1 US 10 (West)	1336	3445	388	11.3
2 US 10 (East)	1438	3544	447	12.6
3 US 89 (South)	<u>1113</u>	<u>2761</u>	<u>145</u>	<u>5.3</u>
TOTALS	3887	9750	980	10.1

Light panels and pickups are grouped with passenger cars.

NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION



--- ZONE BOUNDARIES

--- TRAFFIC BANDS

--- SUMMIT STREET

--- GALLATIN STREET

--- CLARK STREET

--- PACIFIC RAILWAY

--- NORTHERN

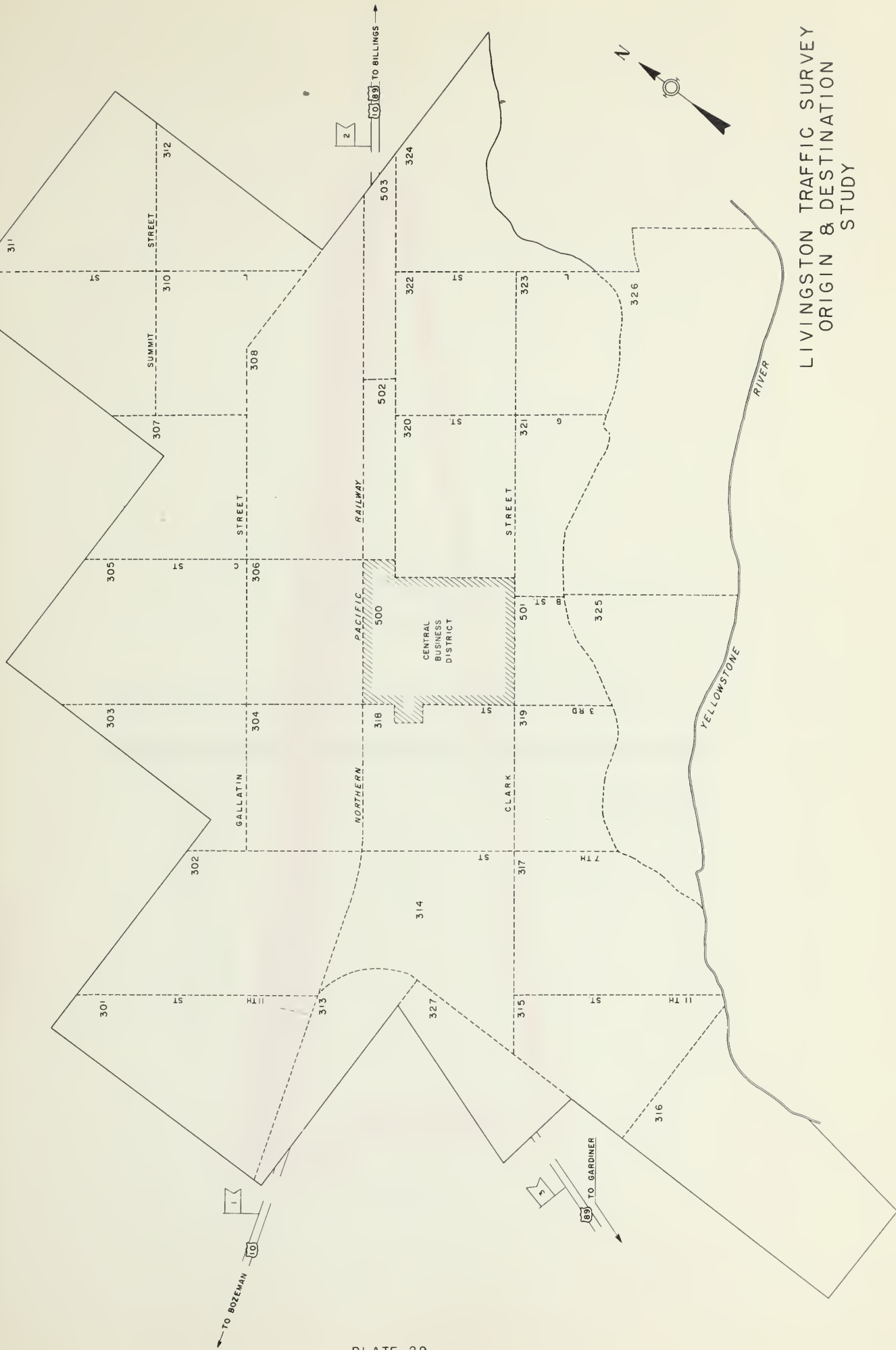
--- CENTRAL BUSINESS DISTRICT

--- YELLOWSTONE RIVER

--- TO BOZEMAN

--- TO GARDINER

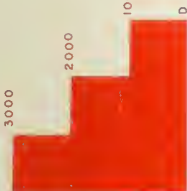
--- TO BILLINGS



LIVINGSTON TRAFFIC SURVEY
ORIGIN & DESTINATION
STUDY

DISTRIBUTION OF ALL
THROUGH TRAFFIC

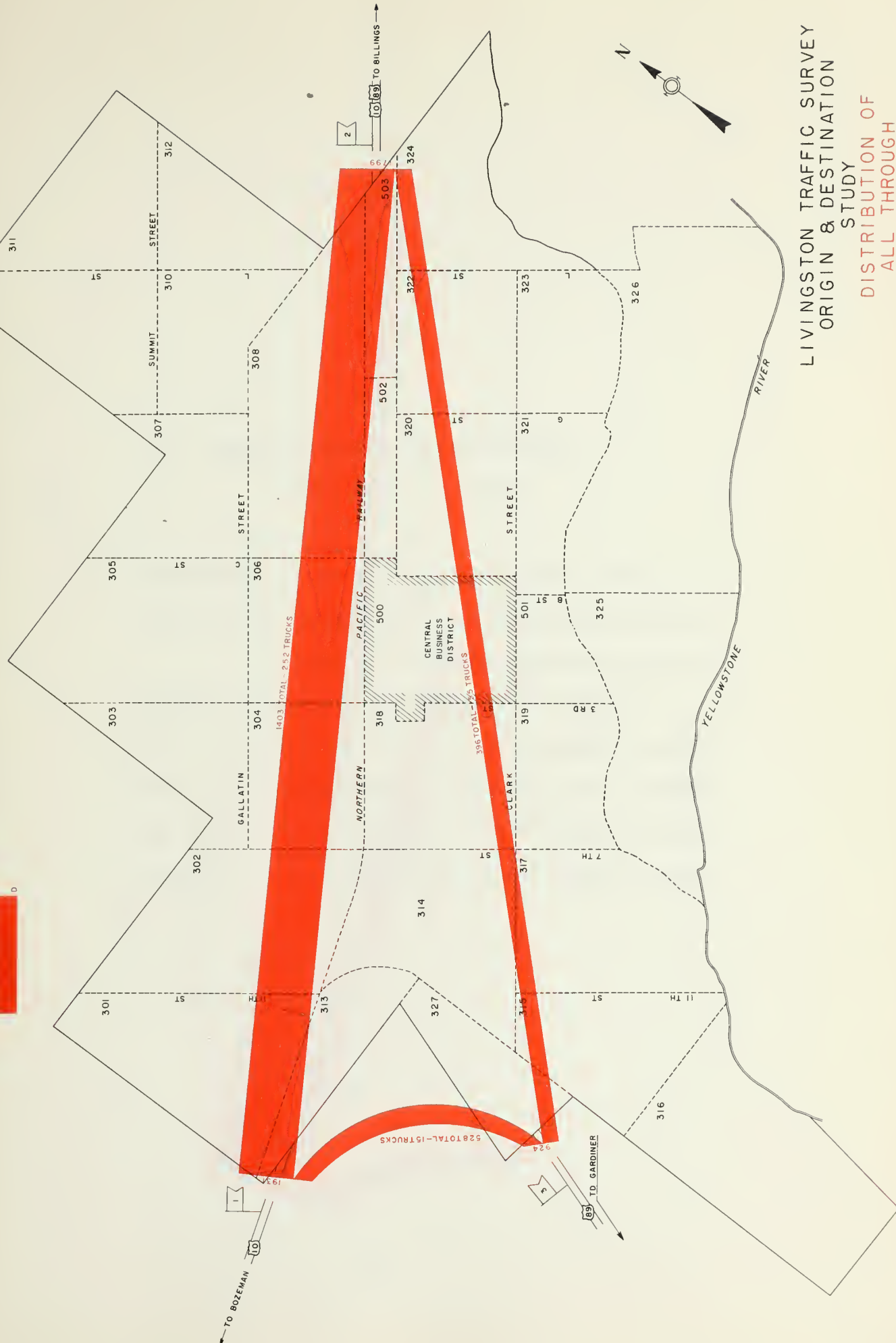
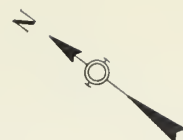
Plate 30 illustrates the interchange of all through trips between external stations on an average weekday in July 1956.



NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

--- ZONE BOUNDARIES

EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION



LIVINGSTON TRAFFIC SURVEY ORIGIN & DESTINATION STUDY DISTRIBUTION OF ALL THROUGH TRAFFIC

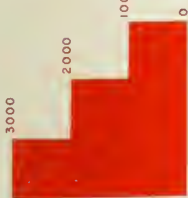
DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 1 - US 10 WEST

Plate 31 illustrates traffic desire lines of all traffic entering and leaving Livingston on US 10 West during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic-	- - - - -	3445
Percent to Central Business District	- - ⁸⁹⁶ - -	20.2
Percent Through Traffic (West-East)	- ¹⁴²⁴ -	40.8
Percent Through Traffic (West-South)	- - ⁵²⁸ -	15.3
N. of V. = 118 347%		

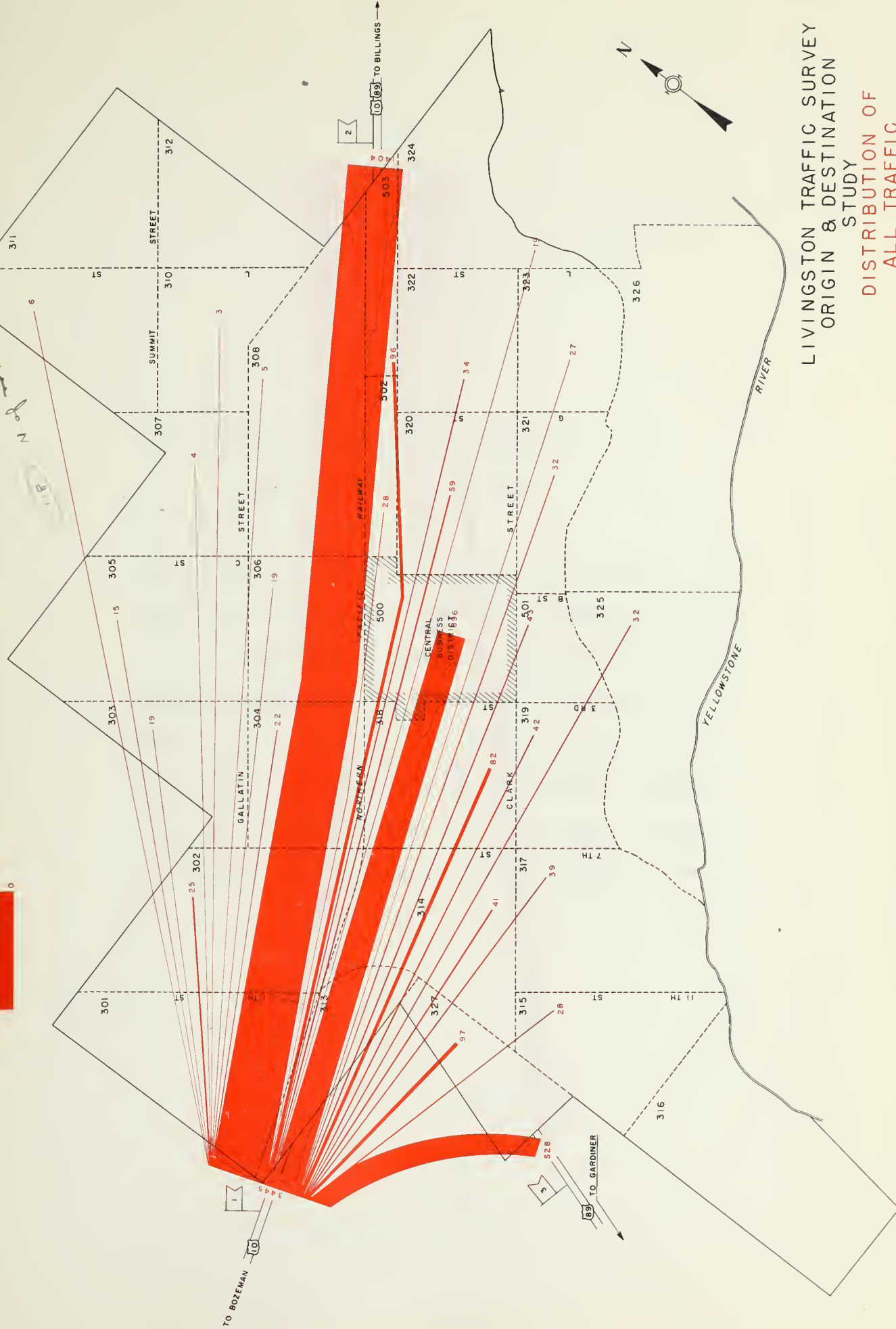


EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION



NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

--- ZONE BOUNDARIES



LIVINGSTON TRAFFIC SURVEY ORIGIN & DESTINATION STUDY DISTRIBUTION OF ALL TRAFFIC PASSING STATION 1

DISTRIBUTION OF ALL TRAFFIC PASSING

STATION 2 - US 10 & 89 EAST

Plate 32 illustrates traffic desire lines of all traffic entering and leaving Livingston on US 10 & 89 East during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	3544
Percent to Central Business District - - - ~~28~~	19.7
Percent Through traffic (East-South) - - - ~~396~~	11.2
Percent Through Traffic (East-West) - - - ~~1423~~	39.6
N . D . N . D . 142 4.6	

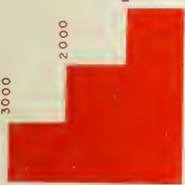
LEGEND

TRAFFIC SCALE
3000
2000
1000
0

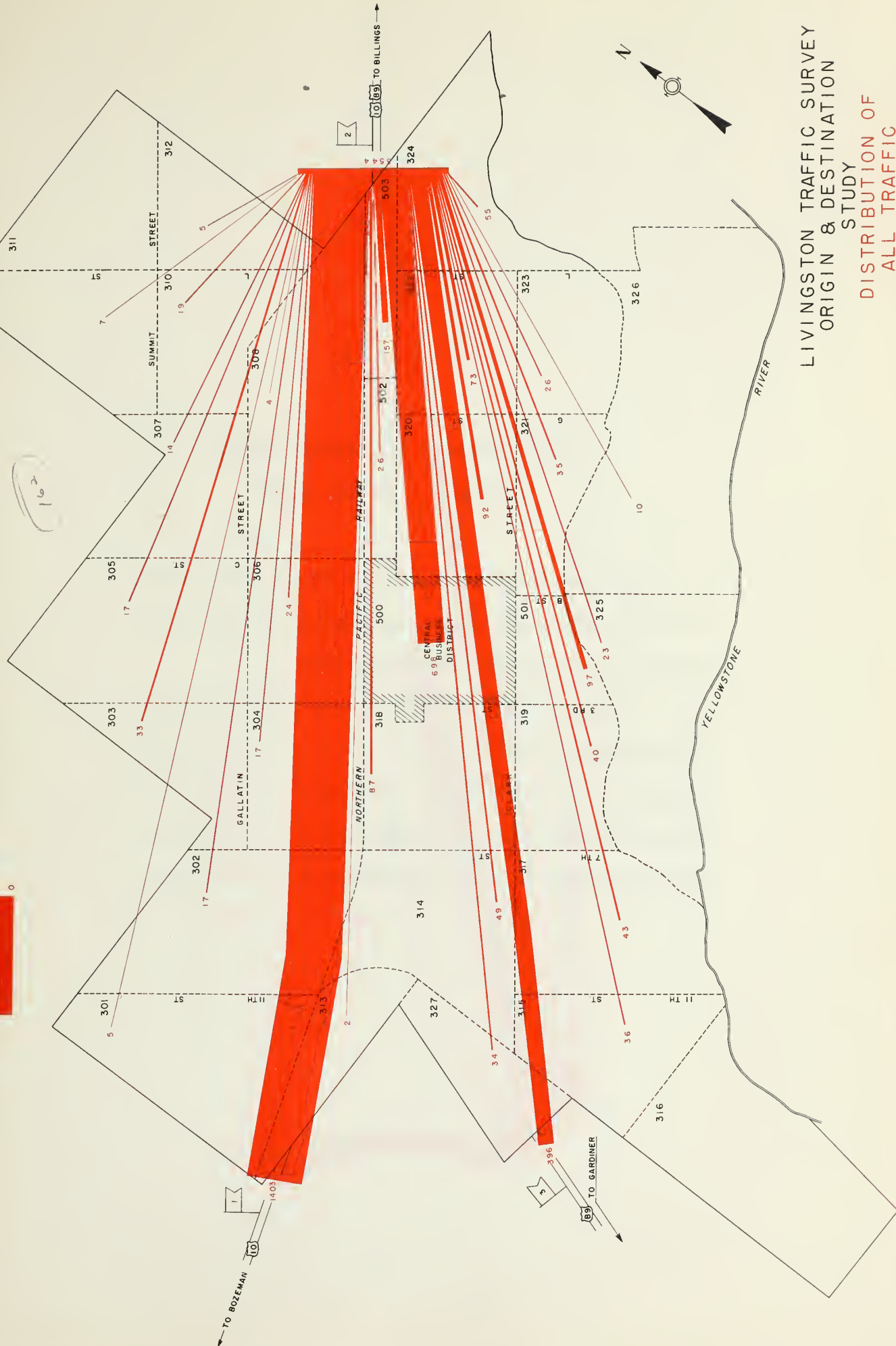
NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION

5



162



DISTRIBUTION OF ALL TRAFFIC PASSING

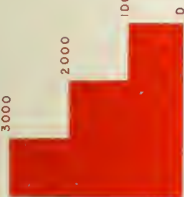
STATION 3 - US 89 SOUTH

Plate 33 illustrates traffic desire lines of all traffic entering and leaving Livingston on US 89 south during an average weekday in July 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic	- - - - -	2761
Percent to Central Business District	- - ~~750~~ -	27.2
Percent Through Traffic (South-East)	- - ~~396~~ -	14.3
Percent Through Traffic (South-West)	- - ~~528~~ -	19.1

N. of N.F. 203 7.4



NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

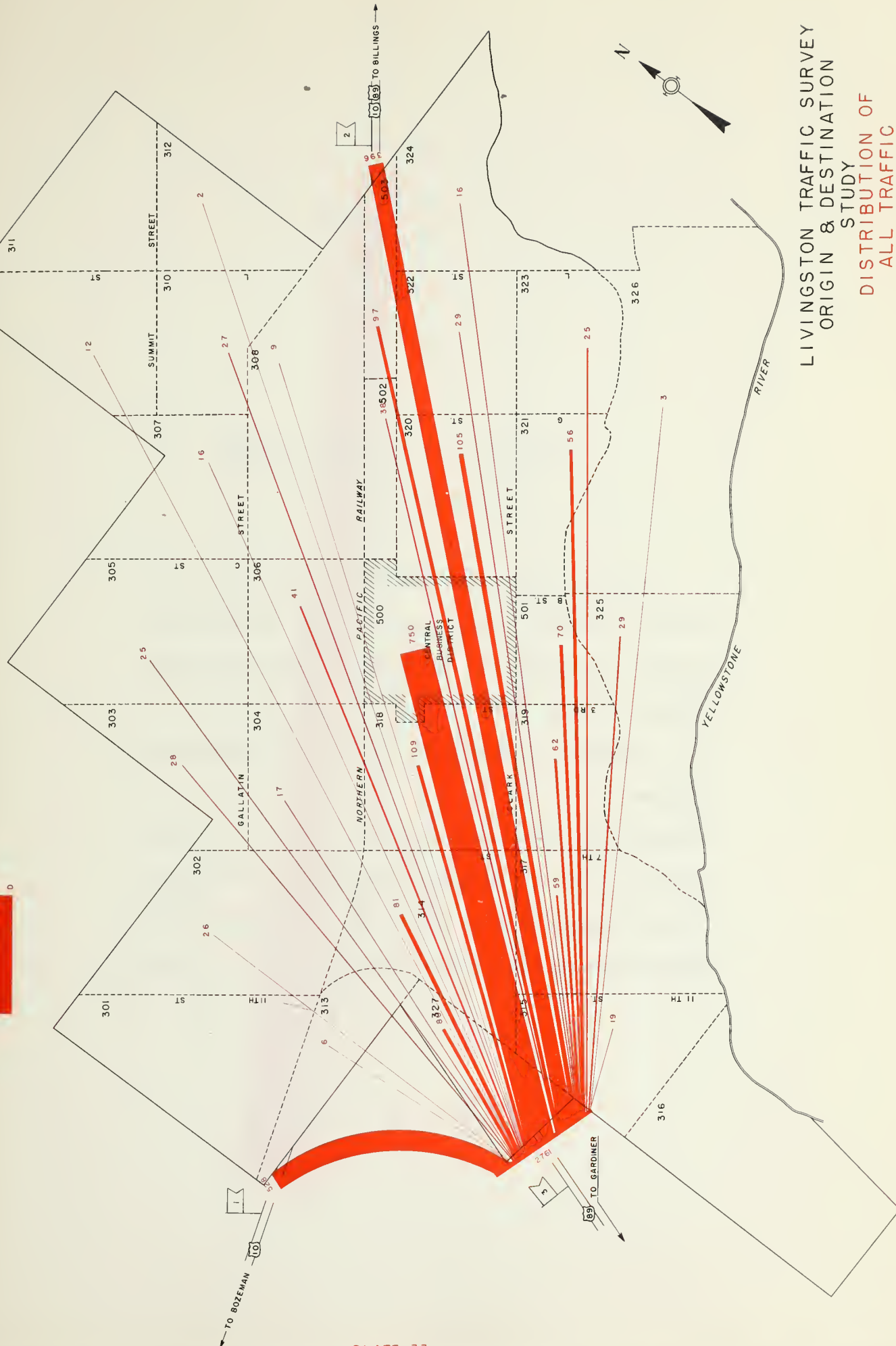
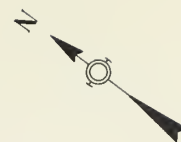
**EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION**

5

--- ZONE BOUNDARIES

ORIGIN & DESTINATION
STATION LOCATION

1000



LIVINGSTON TRAFFIC SURVEY ORIGIN & DESTINATION STUDY

DISTRIBUTION OF ALL TRAFFIC PASSING STATION 3

DISTRIBUTION OF ALL TRUCKS PASSING

STATION 1 - US 10 WEST

Plate 34 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Livingston on US 10 West during an average weekday in July, 1956.

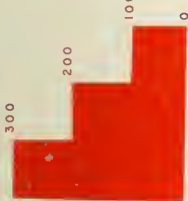
A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	388
Percent to Central Business District - - - ⁵⁶	14.4
Percent Through Traffic (West-East) - - ²⁵²	64.9
Percent Through Traffic (West-South) - - ¹⁵	3.9

N 0 5 17 6 1.5

LEGEND

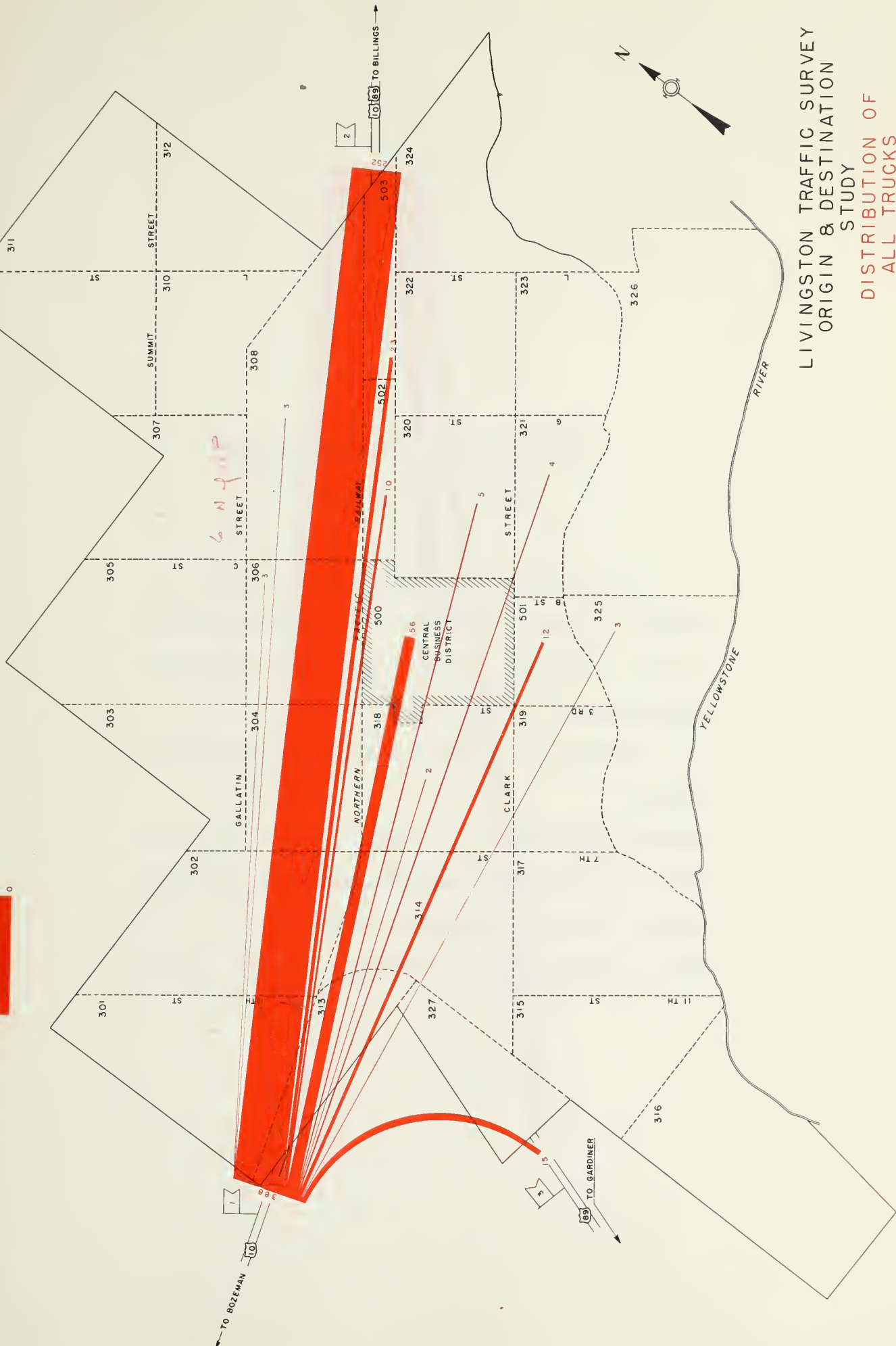
TRAFFIC SCALE



NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

--- ZONE BOUNDARIES

EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION



DISTRIBUTION OF ALL TRUCKS PASSING

STATION 2 - US 10 & 89 EAST

Plate 35 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Livingston on US 10 & 89 East during an average weekday in July 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	447
Percent to Central Business District - - - ¹⁰⁷	15.0
Percent Through Traffic (East-South) - - - ⁵⁵	12.3
Percent Through Traffic (East-West) - - - ²⁵²	56.4
N . S N E	7 1.6

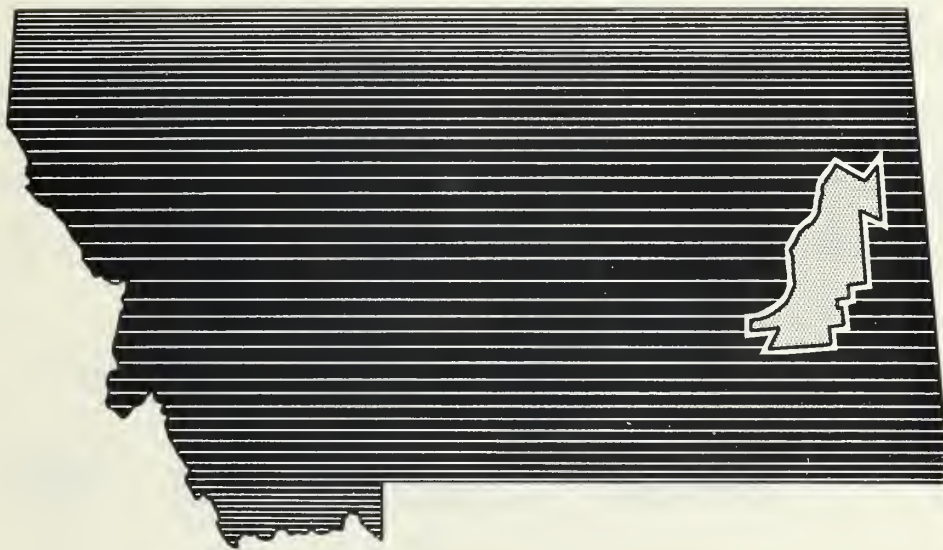
DISTRIBUTION OF ALL TRUCKS PASSING
STATION 3 - US 89 SOUTH

Plate 36 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Livingston on US 89 South during an average weekday in July 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	145
Percent to Central Business District - - - - -	26.2
Percent Through Traffic (South-East) - - - - -	37.9
Percent Through Traffic (South-West) - - - - -	10.3
N. A. W. R. 2	1.4

CITY OF



GLENDIVE

GLENDIVE EXTERNAL ORIGIN AND DESTINATION STUDY

This study was conducted during the period from July 26 to August 6, 1956. Outbound motorists were interviewed at five stations located on the principal highways near the urban limits. Each station was operated for 16 hours between 6 AM and 10 PM on weekdays and the interviews were later expanded to an average twenty-four hour traffic volume.

A summary of all stations operated in the Glendive area follows:

STATION	NUMBER OF INTERVIEWS	AVERAGE WEEKDAY ALL VEHICLES	TRAFFIC TRUCKS	PERCENT TRUCKS
1 Mont. 16	986	2538	308	12.1
2 US 10 (East)	998	2921	281	9.6
3 FAS 335	236	594	88	14.8
4 US 10 (West)	1402	4207	460	10.9
5 Mont. 18	<u>620</u>	<u>1983</u>	<u>286</u>	<u>14.4</u>
TOTALS	4242	12243	1423	11.6

Light panels and pickups are grouped with passenger cars.

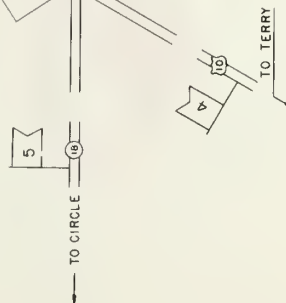
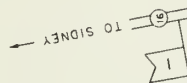
LEGEND

TRAFFIC SCALE

3 EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION

ZONE BOUNDARIES

NOTE TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

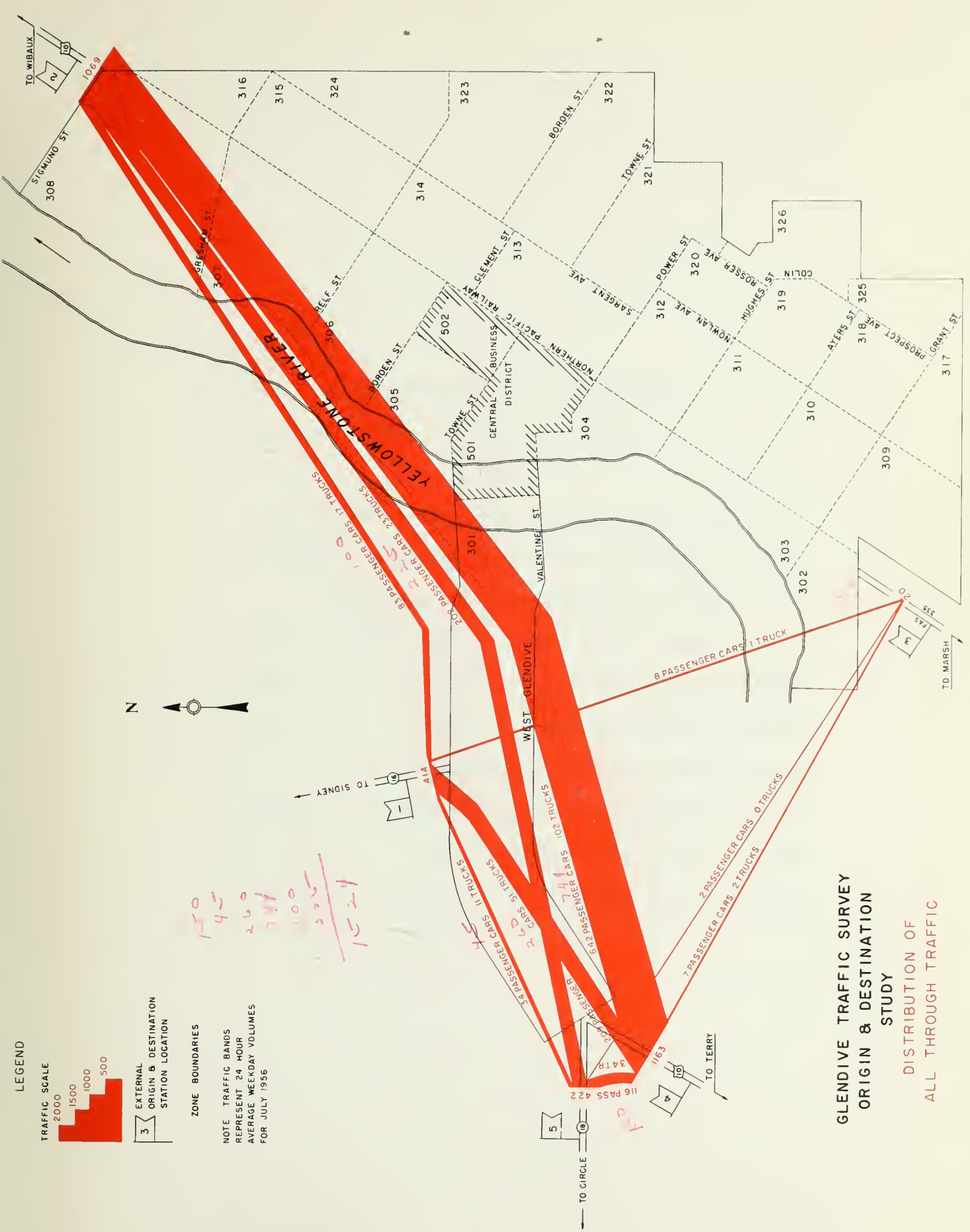


GLENDIVIE TRAFFIC SURVEY
ORIGIN & DESTINATION
STUDY



DISTRIBUTION OF ALL
THROUGH TRAFFIC

Plate 38 illustrates the interchange of all through trips between external stations on an average weekday in August 1956.



DISTRIBUTION OF ALL TRAFFIC PASSING

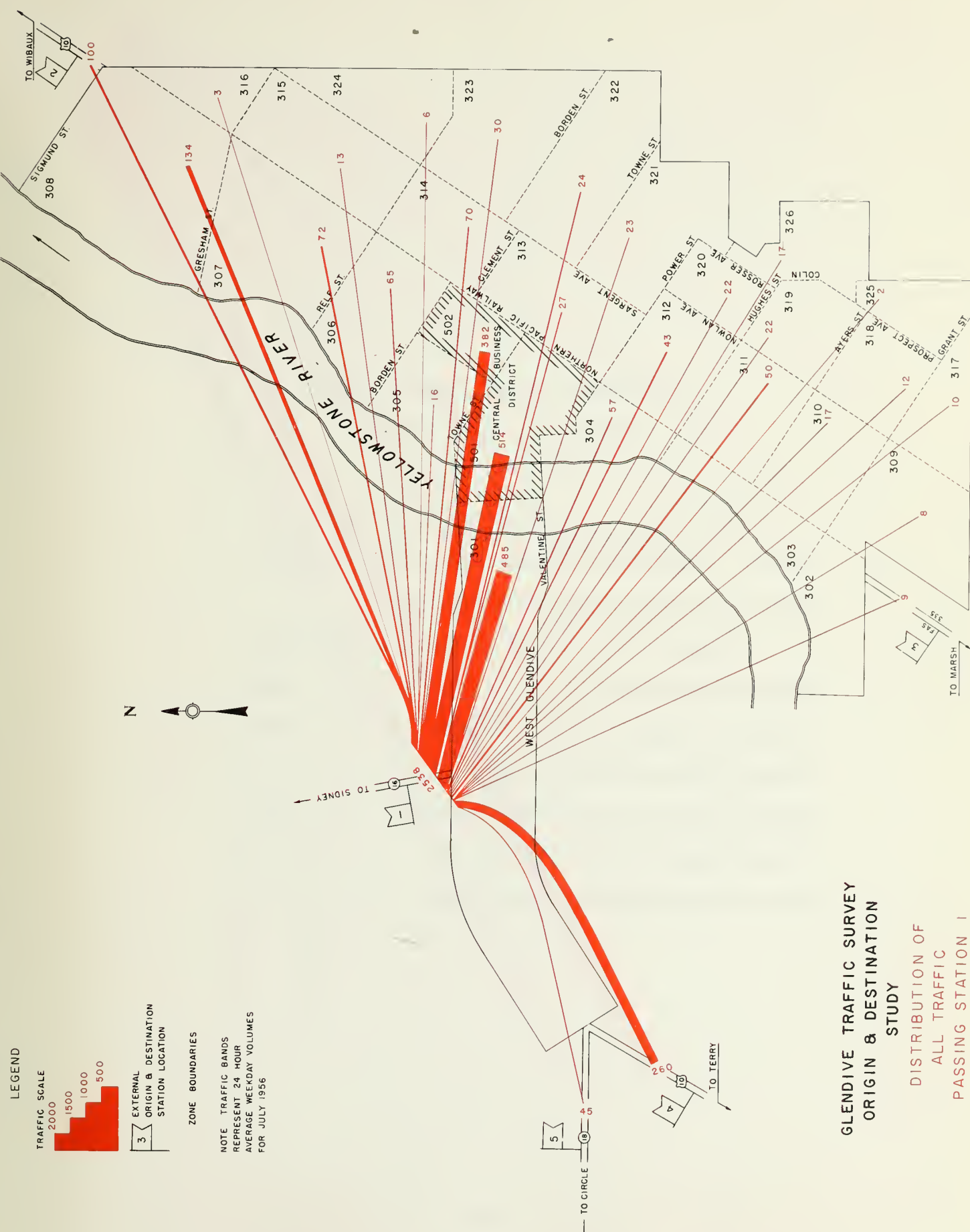
STATION 1 - MONT. 16 NORTH

Plate 39 illustrates traffic desire lines of all traffic entering and leaving Glendive on Mont. 16 North during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	2538
Percent to Central Business District - - - - -	35.3
Percent Through Traffic (North-East) - - - - -	3.9
Percent Through Traffic (North-Southwest) - - - - -	10.2
Percent Through Traffic (North-West) - - - - -	1.8
Percent Through Traffic (North-South) - - - - -	0.4

2538 35.3 3.9 10.2 1.8 0.4
485 17.1

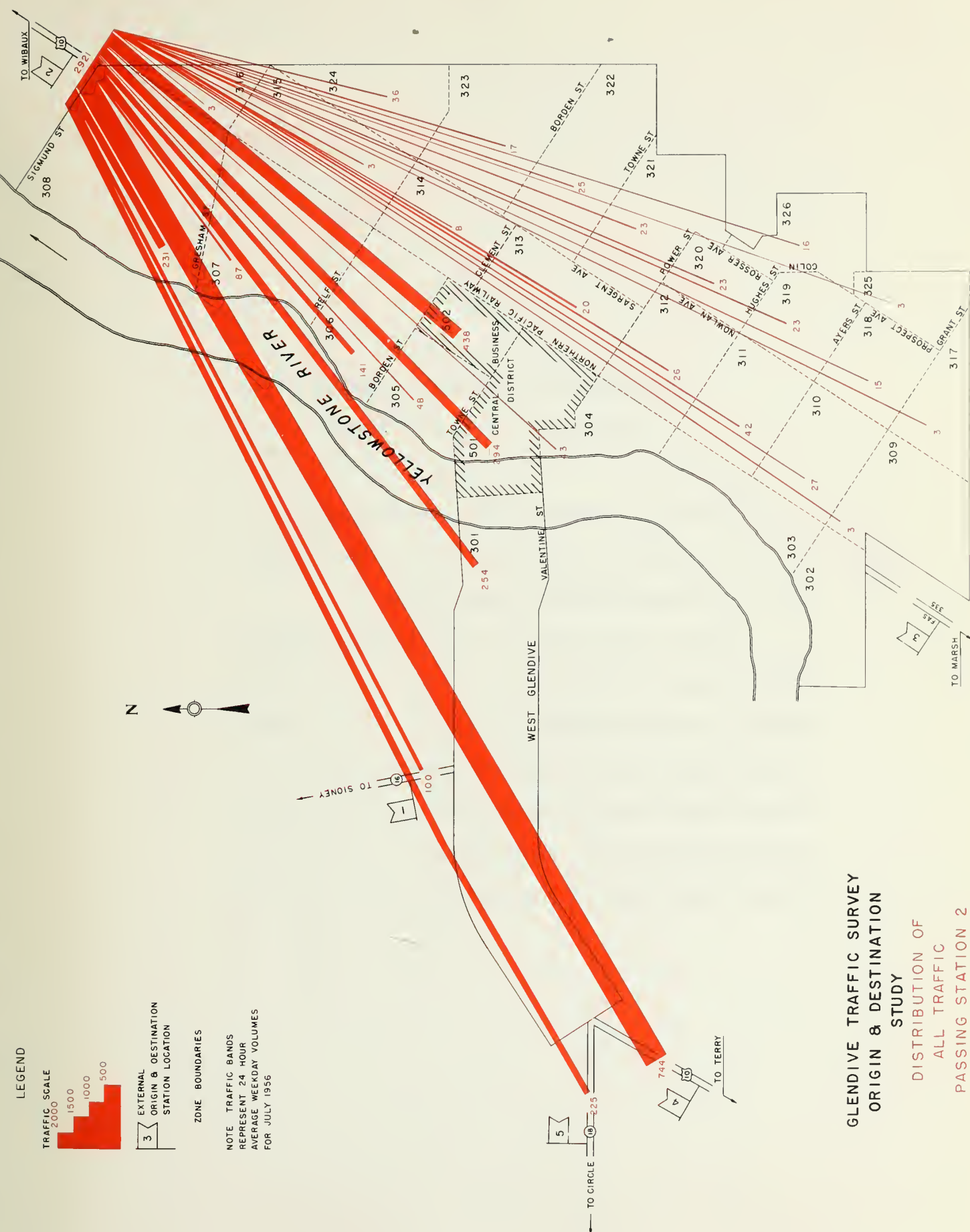


GLENDIVE TRAFFIC SURVEY
 ORIGIN & DESTINATION
 STUDY
 DISTRIBUTION OF
 ALL TRAFFIC
 PASSING STATION 1

STATION 2 - US 10 EAST

A summary of all traffic at this station follows:

$\therefore \quad \frac{1}{2} \times 11 \times 16 = 108$
 $N_{\text{max}} = 108$
 $N = 108$

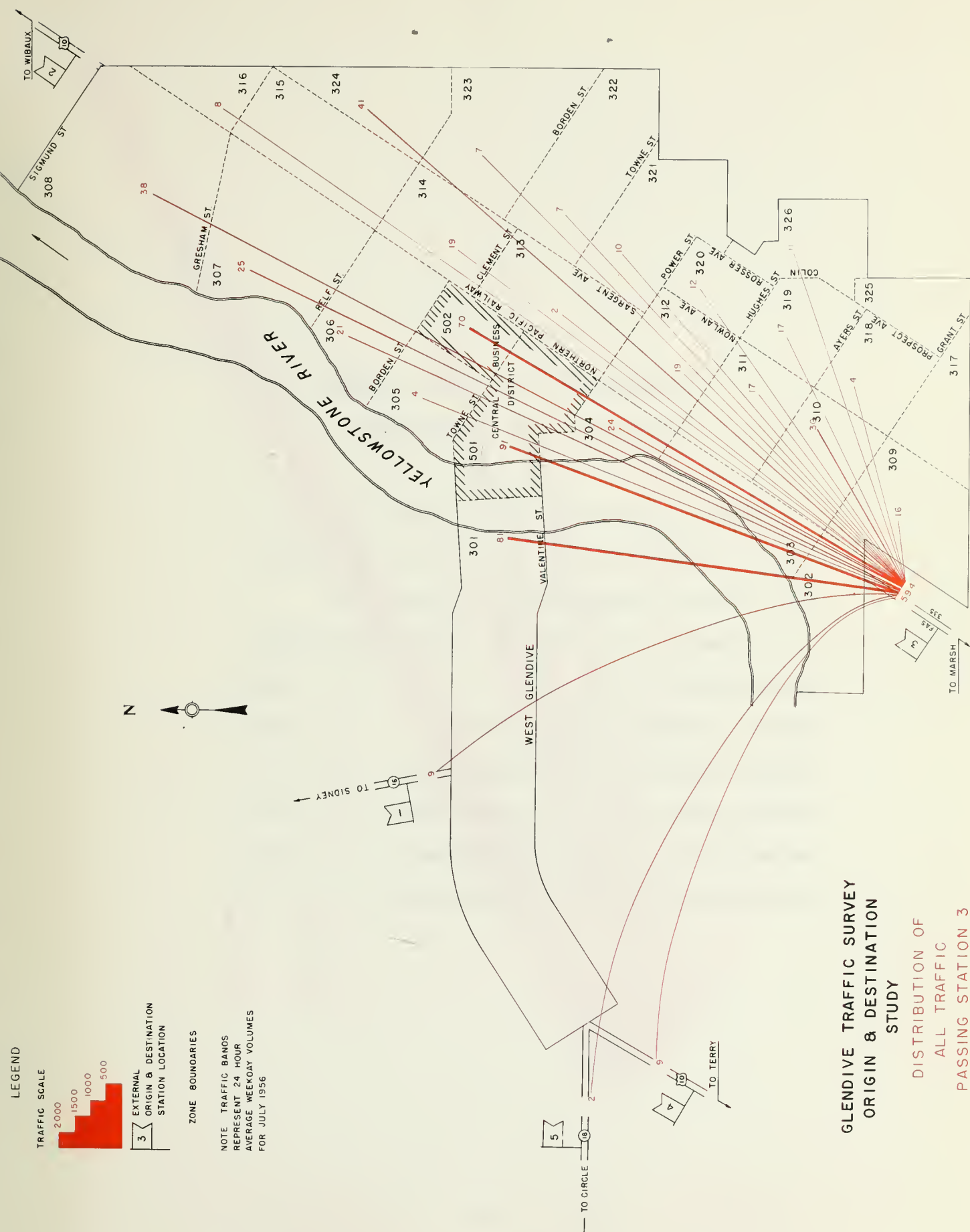


DISTRIBUTION OF ALL TRAFFIC PASSING
STATION 3 - FAS 335 SOUTH

Plate 41 illustrates traffic desire lines of all traffic entering and leaving Glendive on FAS 335 South during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	594
Percent to Central Business District - - - - -	27.1
Percent Through Traffic (South-Southwest) - - -	1.5
Percent Through Traffic (South-West) - - - - -	0.3
Percent Through Traffic (South-North) - - - - -	1.5
Percent Through Traffic (South-East) - - - - -	0.0



DISTRIBUTION OF ALL TRAFFIC PASSING

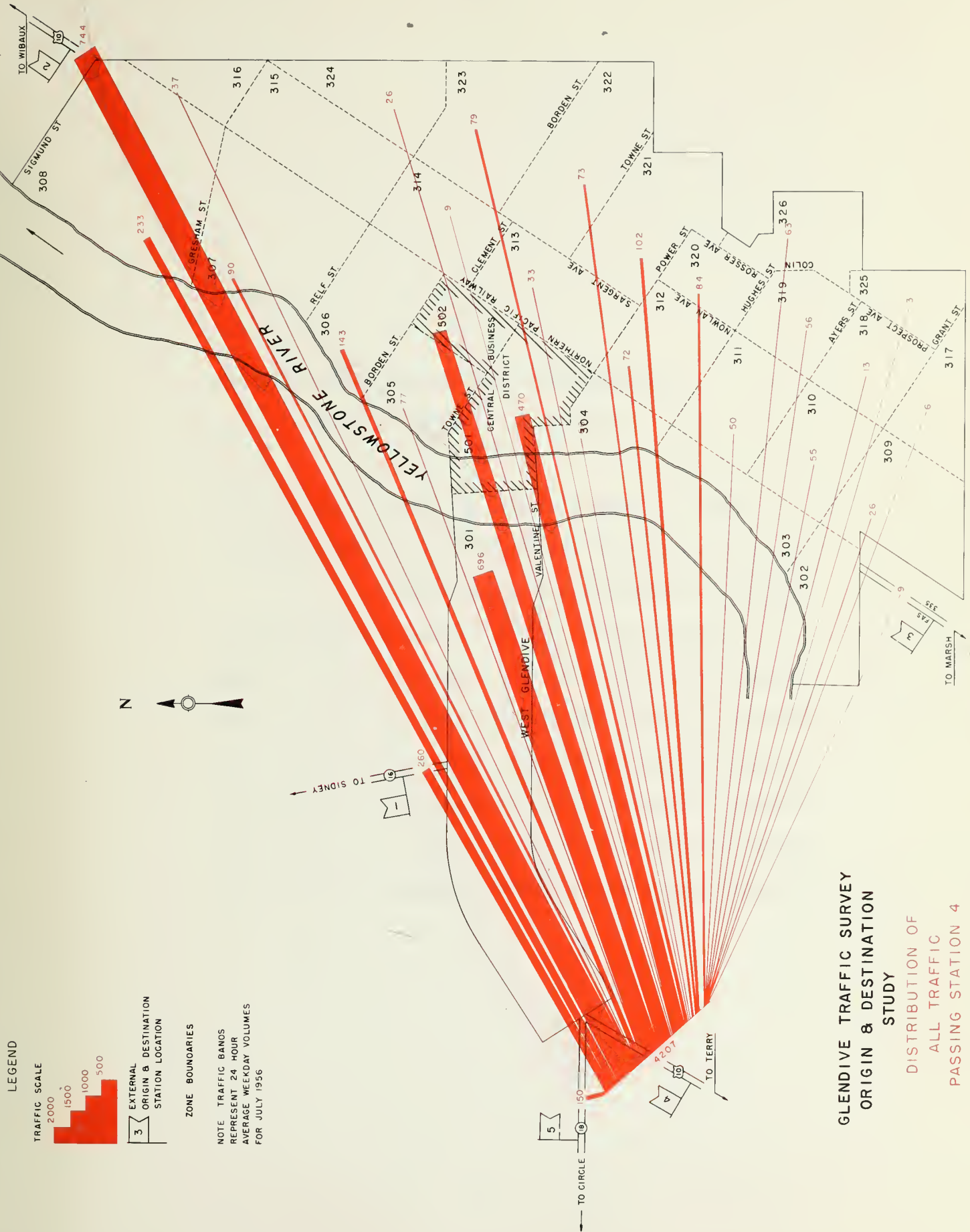
STATION 4 - US 10 SOUTHWEST

Plate 42 illustrates traffic desire lines of all traffic entering and leaving Glendive on US 10 Southwest during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	4207
Percent to Central Business District - - - - -	22.6
Percent Through Traffic (Southwest-West) ~~15.6~~	3.6
Percent Through Traffic (Southwest-North) ~~3.6~~	6.2
Percent Through Traffic (Southwest-East) ~~7.1~~	17.7
Percent Through Traffic (Southwest-South) ~~7.1~~	0.2

U.S. 10 ND	787	18.7
N.S. R.	1106	26.3
195.0	2214	55.0



LEGEND



EXTERNAL ORIGIN & DESTINATION STATION LOCATION

ZONE BOUNDARIES

NOTE: TRAFFIC BANDS REPRESENT 24 HOUR AVERAGE WEEKDAY VOLUMES FOR JULY 1956

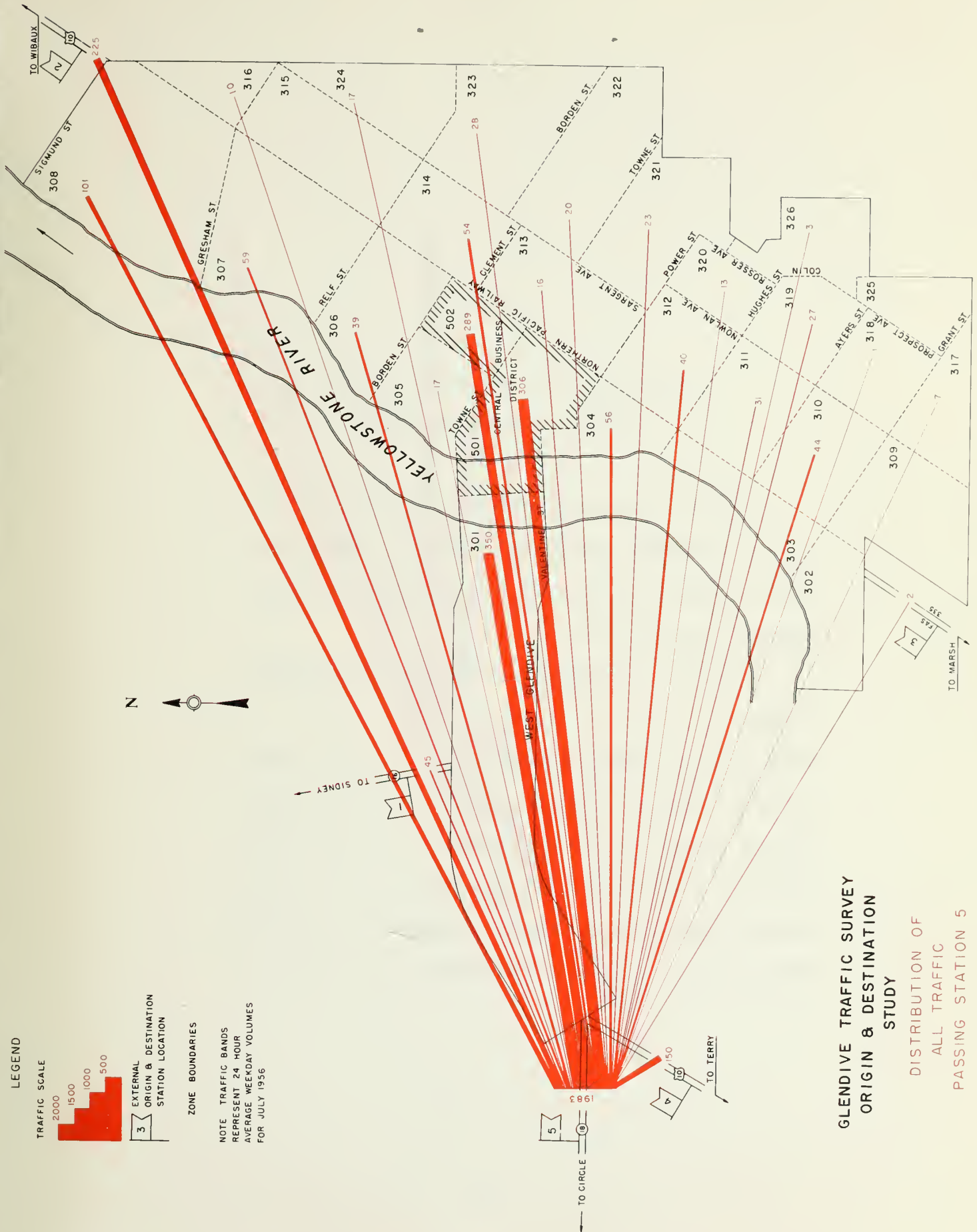
GLENDIVE TRAFFIC SURVEY
ORIGIN & DESTINATION
STUDY
DISTRIBUTION OF
ALL TRAFFIC
PASSING STATION 4

DISTRIBUTION OF ALL THROUGH TRAFFIC PASSING
STATION 5 - MONT. 18 WEST

Plate 43 illustrates traffic desire lines of all traffic entering and leaving Glendive on Mont. 18 West during an average weekday in August 1956.

A summary of all traffic at this station follows:

Average Weekday Traffic - - - - -	1983
Percent to Central Business District - - ^{59.5} - - -	30.0
Percent Through Traffic (West-North) - - ⁴⁵ - - -	2.3
Percent Through Traffic (West-East) - - ^{22.5} - - -	11.3
Percent Through Traffic (West-South) - - - ² - -	0.1
Percent Through Traffic (West-Southwest) - ^{15.0} - - -	7.6



DISTRIBUTION OF ALL TRUCKS PASSING

STATION 1 - MONT. 16 NORTH

Plate 44 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Glendive on Mont. 16 North during an average weekday in August 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	308
Percent to Central Business District - - - - -	15.9
Percent Through Traffic (North-East) - - - - -	5.5
Percent Through Traffic (North-South) - - - - -	0.3
Percent Through Traffic (North-Southwest) - - -	16.6
Percent Through Traffic (North-West) - - - - -	3.6

LEGEND

TRAFFIC SCALE



EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION

ZONE BOUNDARIES

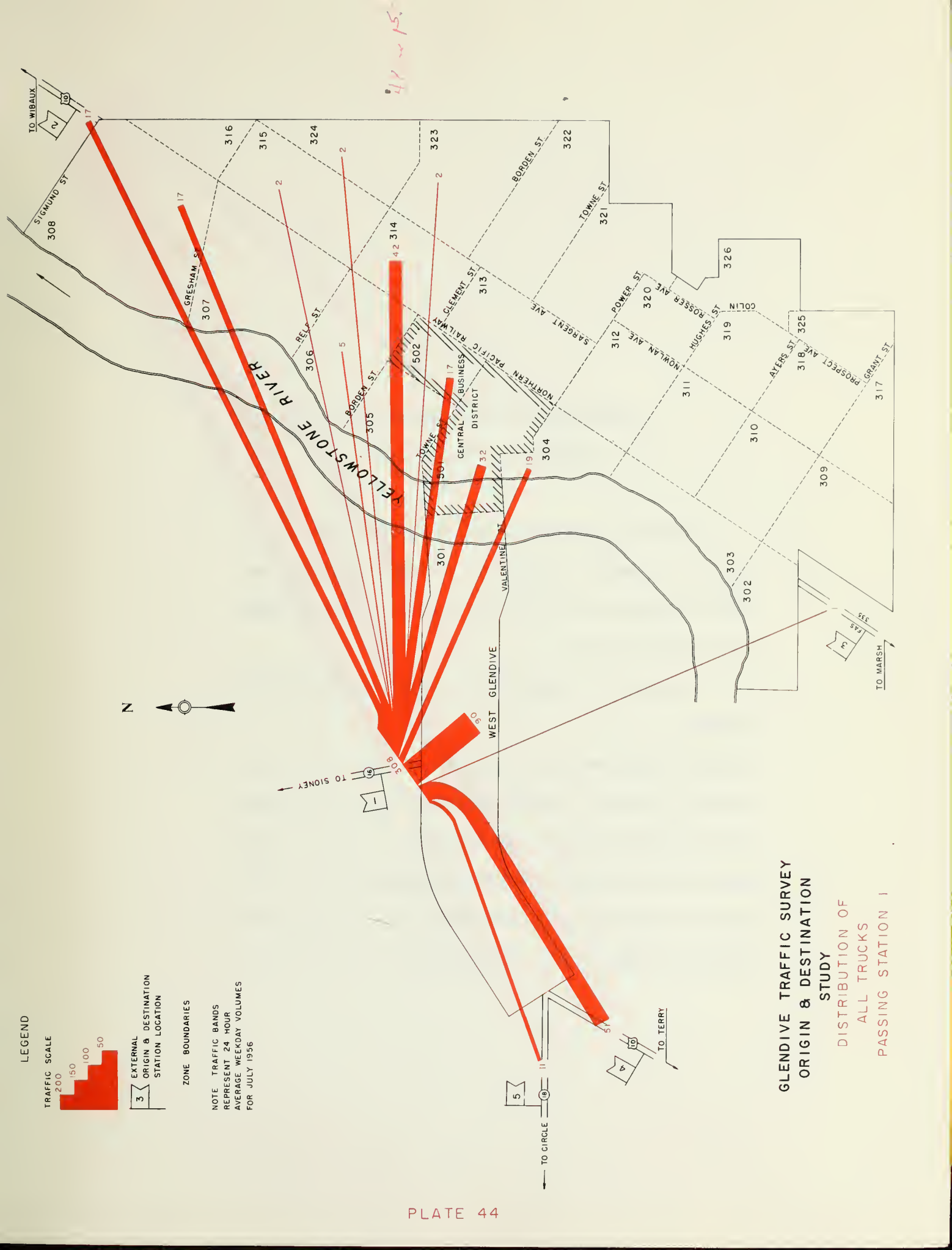
NOTE: TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956



TO SIOUX

TO CIRCLE
TO TERRY

GLENDIVE TRAFFIC SURVEY ORIGIN & DESTINATION STUDY DISTRIBUTION OF ALL TRUCKS PASSING STATION 1



DISTRIBUTION OF ALL TRUCKS PASSING

STATION 2 - US 10 EAST

Plate 45 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Glendive on US 10 East during an average week-day in August 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	281
Percent to Central Business District - - - - -	14.2
Percent Through Traffic (East-South) - - - - -	0.0
Percent Through Traffic (East-Southwest) - - - -	36.3
Percent Through Traffic (East-West) - - - - -	8.2
Percent Through Traffic (East-North) - - - - -	6.0

LEGEND

TRAFFIC SCALE

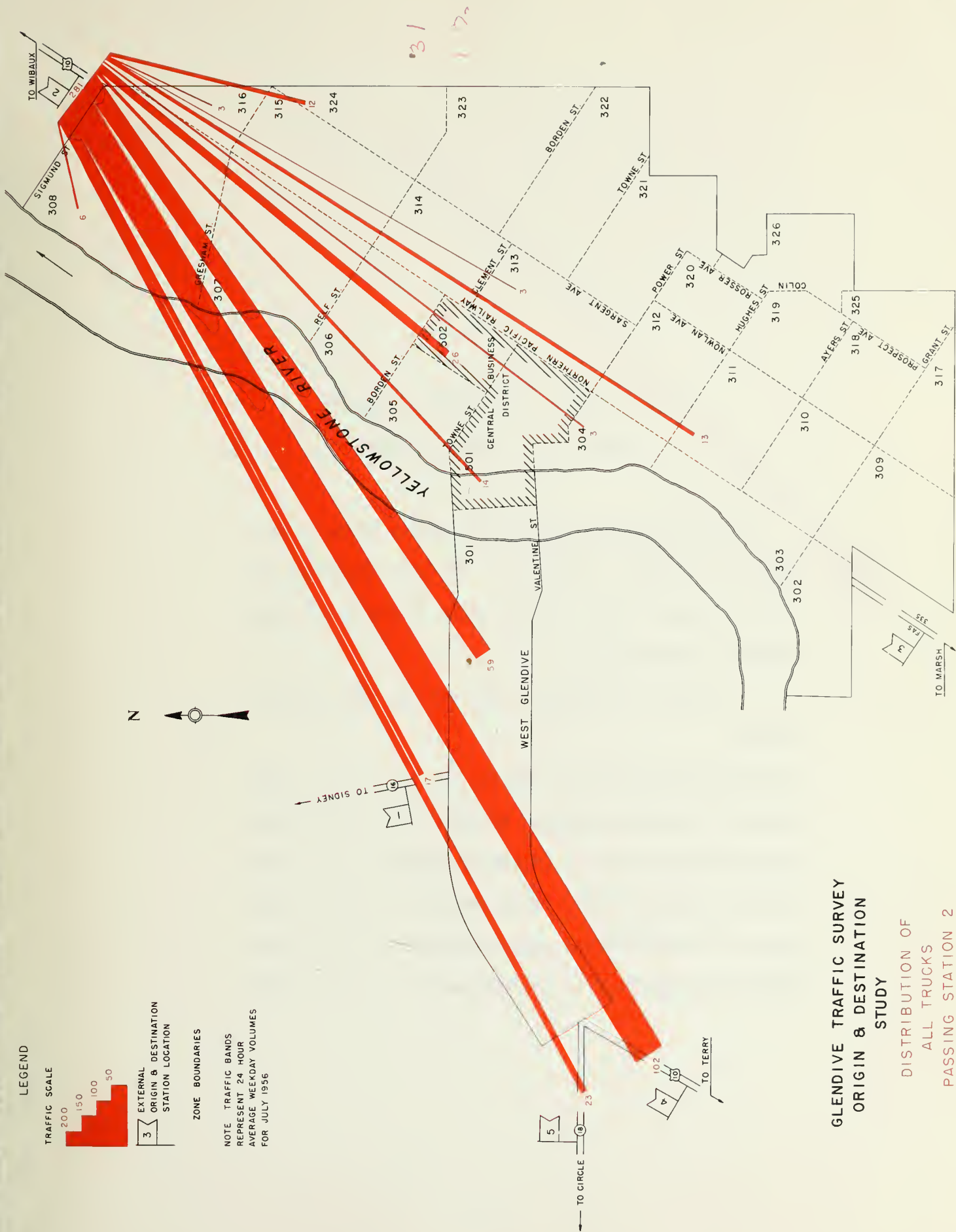


EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION

ZONE BOUNDARIES

NOTE. TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

GLENDIVE TRAFFIC SURVEY ORIGIN & DESTINATION STUDY DISTRIBUTION OF ALL TRUCKS PASSING STATION 2



DISTRIBUTION OF ALL TRUCKS PASSING

STATION 3 - FAS 335 SOUTH

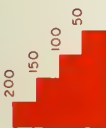
Plate 46 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Glendive on FAS 335 South during an average weekday in August 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	88
Percent to Central Business District - - - - -	13.6
Percent Through Traffic (South-Southwest) - -	2.3
Percent Through Traffic (South-West) - - - - -	0.0
Percent Through Traffic (South-North) - - - -	1.1
Percent Through Traffic (South-East) - - - -	0.0

LEGEND

TRAFFIC SCALE



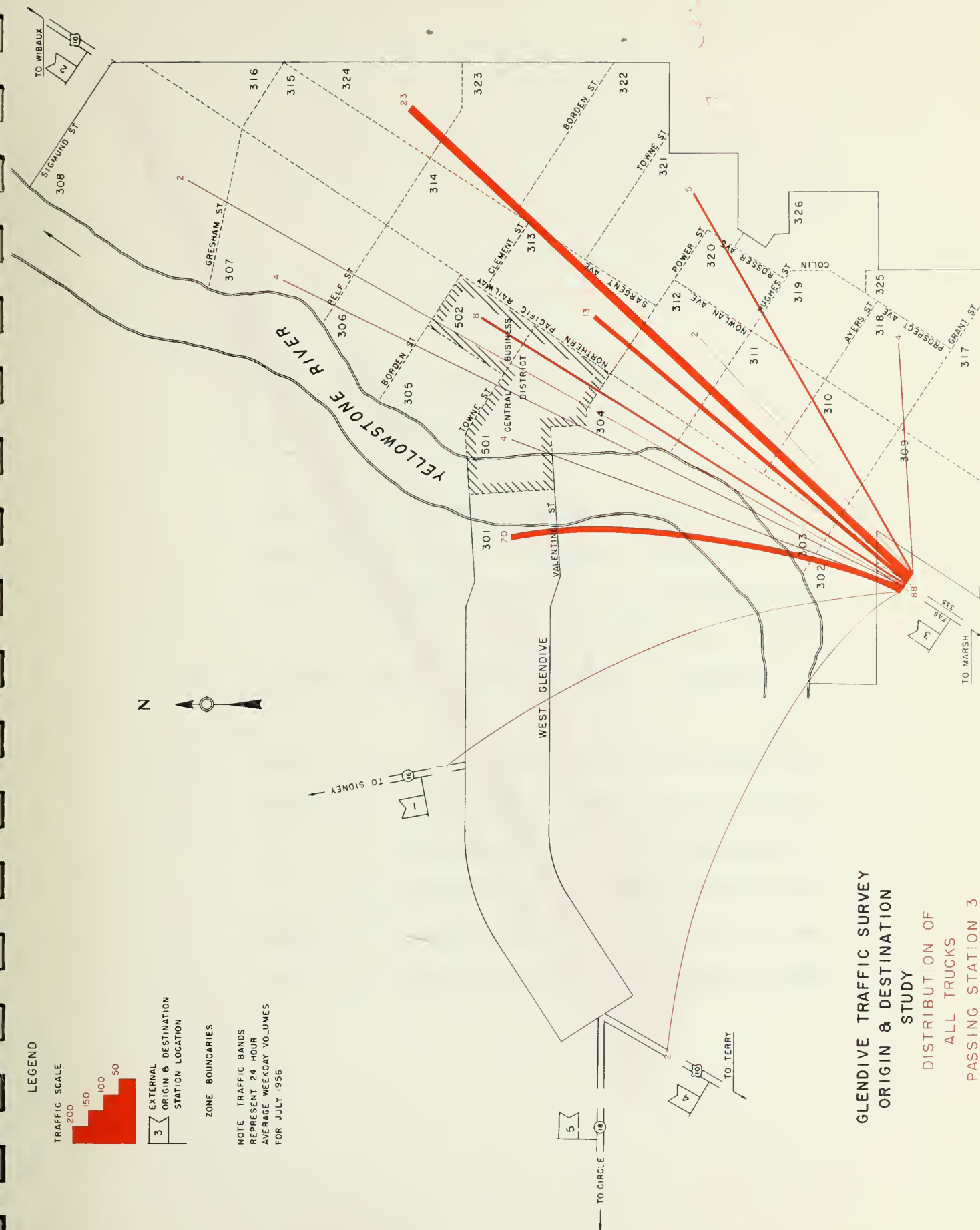
EXTERNAL
ORIGIN & DESTINATION
STATION LOCATION



ZONE BOUNDARIES

NOTE TRAFFIC BANDS
REPRESENT 24 HOUR
AVERAGE WEEKDAY VOLUMES
FOR JULY 1956

GLENDIVE TRAFFIC SURVEY ORIGIN & DESTINATION STATION DISTRIBUTION OF ALL TRUCKS PASSING STATION 3



DISTRIBUTION OF ALL TRUCKS PASSING

STATION 4 - US 10 SOUTHWEST

Plate 47 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Glendive on US 10 Southwest during an average weekday in August 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	460
Percent to Central Business District - - - - -	12.2
Percent Through Traffic (Southwest-West) - - - -	7.4
Percent Through Traffic (Southwest-North) - - -	11.1
Percent Through Traffic (Southwest-East) - - -	22.2
Percent Through Traffic (Southwest-South) - - -	0.4

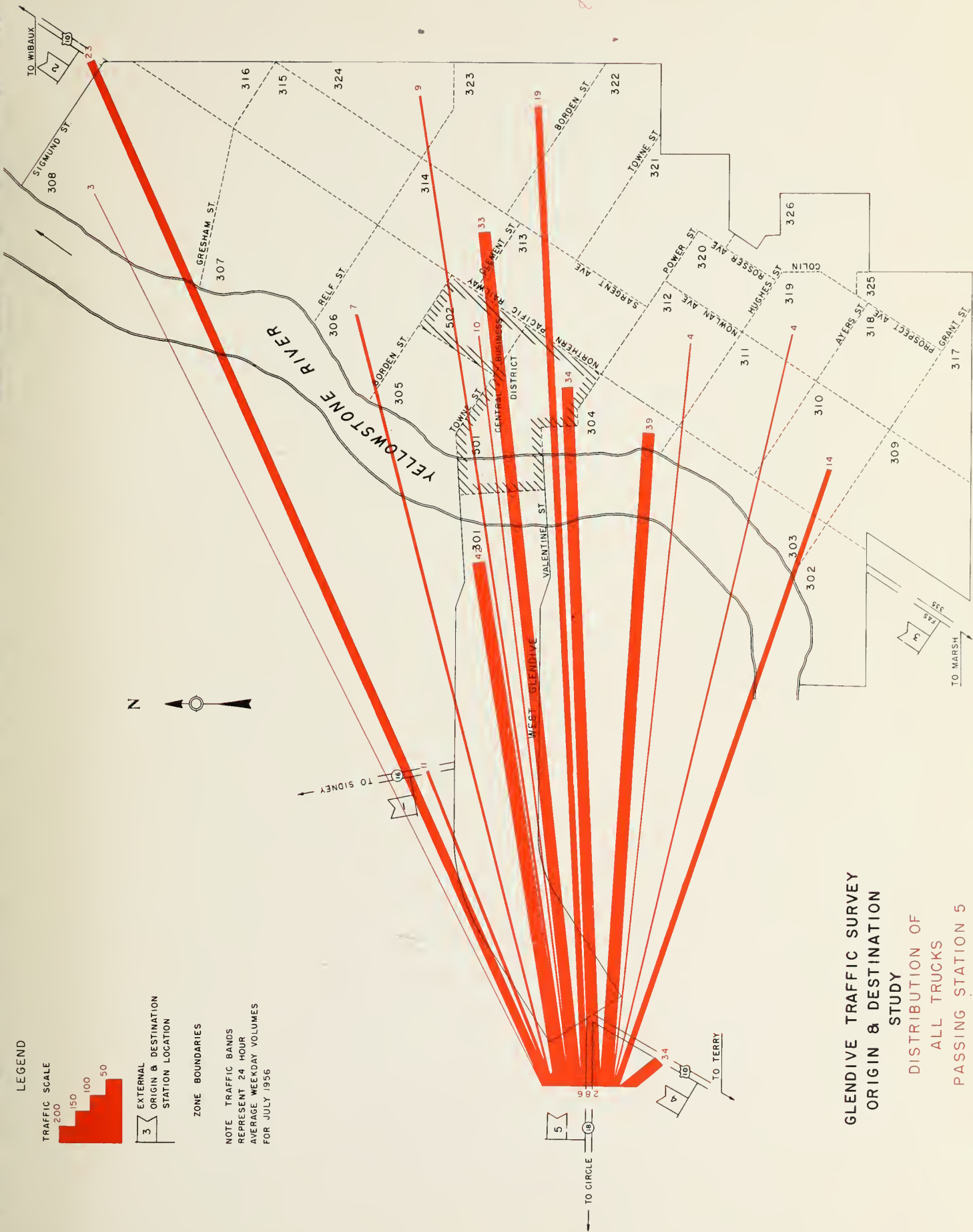
DISTRIBUTION OF ALL TRUCKS PASSING

STATION 5 - MONT. 18 WEST

Plate 48 illustrates traffic desire lines of all medium and heavy commercial vehicles entering and leaving Glendive on Mont. 18 West during an average weekday in August 1956.

A summary of commercial traffic at this station follows:

Average Daily Commercial Traffic - - - - -	286
Percent to Central Business District - - - - -	15.4
Percent Through Traffic (West-North) - - - - -	3.8
Percent Through Traffic (West-East) - - - - -	8.0
Percent Through Traffic (West-South) - - - - -	0.0
Percent Through Traffic (West-Southwest) - - - - -	11.9



GLENDIVE TRAFFIC SURVEY
 ORIGIN & DESTINATION
 STUDY
 DISTRIBUTION OF
 ALL TRUCKS
 PASSING STATION 5

